

ARCHAEOLOGICAL SITE SURVEY
OF THE PEMBILIER PROJECT AREA

by

KENNETH M. AMES

U.S. CORPS OF ENGINEERS
CONTRACT # DACW37-75-C-0-162

MOORHEAD STATE COLLEGE
MOORHEAD, MINNESOTA

JUNE, 1976

AD-A160 732

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

1

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) ARCHAEOLOGICAL SITE SURVEY OF THE PEMBILIER PROJECT AREA.		5. TYPE OF REPORT & PERIOD COVERED May-June, 1975
6. AUTHOR(s) Kenneth M. Ames		7. CONTRACT OR GRANT NUMBER(s) DACPW37-75-C-0-169
8. PERFORMING ORGANIZATION NAME AND ADDRESS Dept of Archaeology Moorhead State College Moorhead, Minnesota		9. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
10. CONTROLLING OFFICE NAME AND ADDRESS U.S. Army Engr. District, St Paul 1135 USPO & Custom House St Paul, MN 55101-1479		11. REPORT DATE June 1975
12. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		13. NUMBER OF PAGES 101
14. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited		15. SECURITY CLASS. (of this report) UNCLASSIFIED
16. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		17. DECLASSIFICATION DOWNGRADING SCHEDULE S DTIC ELECTED OCT 31 1985 D B
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) ARCHAEOLOGY PEMBINA RIVER		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This report is an archaeological survey of the Pembina River Coulee. All sites appear to be surface sites which functioned as manufacturing locales for lithic tools. The eastern 2/3 of the coulee was completely surveyed; the western third was only slightly surveyed. The sites located are concentrated east of the Pembina's confluence with its North Fork and along the Little Pembina.		

DISCLAIMER NOTICE

**THIS DOCUMENT IS BEST QUALITY
PRACTICABLE. THE COPY FURNISHED
TO DTIC CONTAINED A SIGNIFICANT
NUMBER OF PAGES WHICH DO NOT
REPRODUCE LEGIBLY.**

ABSTRACT

Moorhead State Archaeologists, funded by the U. S. Army Corps of Engineers undertook an Archaeological survey of the Pembina River Coulee in the Pembilier project area in late May, 1975. Work started May 26, and ended June 7, 1975. 19 sites were located, and 2 were tested. All sites appear to be surface sites which functioned at manufacturing locales for lithic tools. The eastern 2/3 of the coulee was completely surveyed; the western third was only slightly surveyed. The sites located are concentrated east of the Pembina's confluence with its North Fork and along the Little Pembina.



TABLE OF CONTENTS

	Pages
Abstract	i
Acknowledgements	ii
Table of Contents	1
List of Maps	2
List of Figures	3
Introduction	4
Research Goals and Methods	7
Descriptive Archaeology	11
Summary and Recommendations	18
Maps	23
Figures	27
References	57
Appendix A Site Survey Forms	58
Appendix B Artifact Catalogue	93
Appendix C List of Project Members and Qualifications	96

LIST OF MAPS

Map 1	USGS Walhalla Quad	in pocket
Map 2	USGS Vang Quad	in pocket
Map 3	USGS Olga NW Quad	in pocket
Map 4	Survey Area	page 24
Map 5	Distribution of Sites	page 26

LIST OF FIGURES

	Pages
1. View of Carpenter Site #1 showing area excavated	28
2. View of Woodtick Site	30
3. View of Carpenter Site looking North from South Bank	32
4. View of Excavations at Carpenter	34
5. View of Excavations at Woodtick	36
6. Pit showing Boundary Between Soil and Clay of Walsh Unit 1 at 32CV201	38
7. General View of River looking East from Dam Site	40
8. View Up River from Dam Site	42
9. View of Terrace in Transect 7 looking West	44
10. Overland Route into Transect 6	46
11. Pembina River	48
12. General View of the Pembina	50
13. View of 32CV210	52
14. View of 32CV212	54
15. Typical Chalcedony Material Found in the Coulee	56

INTRODUCTION

A survey of the Pembina River was contracted by Moorhead State College, Roland Dille, College President, with Kenneth M. Ames, Department of Sociology and Anthropology, Project and Field Director with the U. S. Army Corps of Engineers Contract Number DACW37-75-G-0169, for the period of 26 May to 7 June, 1975, to ascertain the nature of the Archaeological potential of the Pembina River Coulee in the proposed reservoir area of the Pembilier Dam, Cavalier County, North Dakota. (Map 4)

The Pembina River Coulee in this area is a deep and surprisingly rugged valley composed primarily of soft sedimentary rock. The valley floor is a narrow flood plain which is farmed between the confluence of the Pembina and the North Fork of the Pembina and the Pembina Delta at Walhalla, North Dakota. Upstream from the North Fork of the Pembina to the Canadian border, the valley is a game management area, road access is poor, vegetation dense and bushy and the valley walls deeply dissected. The survey was primarily concerned with this flood plain to an elevation of 1080 feet, the maximum reservoir level. At the dam site 100 feet of valley walls were thus included. At the Canadian border, the flood plain itself is above this level. The total distance involved is 24 river miles.

Because of the Corps of Engineers deadline of 15 June, 1975 for this report, and Moorhead State College's academic calendar, only a two week period was available to conduct the survey, with one week to prepare this report. The survey was further hampered

because negotiations and signing of the contract by the appropriate institutional officers could not be done until the week prior to commencing the field work.

The project had therefore, a total 14 days for the actual field work. In this time, large scale testing operations were impossible, particularly since there were no reported sites in the valley, nor were local historians or amateurs aware of any sites in the valley. Thus it was necessary (1) to locate sites and (2) select from these sites which seemed significant and which could be tested within a very limited span of time. Any extended work was beyond the scope of the 1975 project. Therefor the work outlined below, and the results are preliminary at best, and can only provide the basis for a program of survey and testing to be conducted with a reasonable time span available to it. To accomplish this summer's work, a field crew of six was employed, this crew included a Field Director, the Project Director, an Assistant Field Director, and four students. Equipment was provided by Moorhead State College and included all excavation equipment, a Berger Transit, and an International Harvester Travellall. The Project Director also provided a Jeep Station Wagon.

PRIORE INVESTIGATION

Check with the State Archaeologist's office in Bismarck, North Dakota, and the site files at North Dakota University showed no reported sites within the boundaries of the survey area. Discussions with local historians, amateur archaeologists and the landowners of the area indicated they had no idea what materials were in the valley, if indeed there were any. One active local historian was convinced, through his own research that there was no aboriginal occupation of the valley. Several local farmers stated they had never heard of anything ever being found in the valley. Others remembered having thrown things into their rock piles or in the river. Thus at the outset, the available information was negligible and indicated there was no archaeological materials within the Pembina Coulee.

RESEARCH GOALS AND METHODS

The problem to be solved by the survey was whether the valley had been occupied or utilized in any way by populations of Native Americans prior to the arrival of Euro-Americans. Time did not allow formulation of more elaborate problems or hypotheses. The problem has both temporal and spatial elements. Information was needed on (1) the spatial extent of archaeological materials within the Pembina Coulee, and (2) the temporal depth extent of any materials. In order to accomplish the first, in the time allowed, an intensive surface survey of the Coulee was required. In order to accomplish the second, test excavations of known or possible sites were necessary. Because of the time available, and the need to develop as much information as possible, priority was given to defining the spatial distribution of materials. Actual excavations were to be limited to known sites to determine how far below surface cultural materials extended. Localities which were promising, but which had no clear cut evidences of prehistoric occupation on the surface were not tested. It was felt that priority should be given to testing the subsurface, vertical extent of known sites as the best way of maximizing available time and manpower.

Thus the basic research design began with the null hypothesis that the valley had never been occupied. To test this, the basic research strategy was to intensively surface survey the

Coulee floor, and to place test excavations in certain selected localities to provide some idea of subsurface extent of brown sites. If no surface sites were located then test excavations would have been begun on the one or two most promising localities discovered by the surface survey.

In order to avoid biases caused by (1) any expectations held by the research team about the kind of sites which might be in the Coulee, and their distributions and (2) inequalities of coverage of certain areas by the survey because of difficulties in terrain, ground cover or access it was necessary to arbitrarily select sample areas within the valley for preliminary survey work. If this were not done, areas which the survey team felt unlikely localities for sites, areas unpleasant to work in or difficult to get to might be slighted. Seven North-South transects were chosen which crossed the valley from Coulee wall to Coulee wall. (Maps 1,2,3). These were selected by starting at the dam site and surveying at every other section line, as we moved upstream. The transects were 1/8 of a mile wide, west from each section line, and as long as required to cross the Coulee floor. Each transect was completely walked. The information gained from this procedure would then be used to guide the survey of the remaining parts of the valley if time allowed. If time was short by the completion of the seven transects, additional transects would be chosen. It was further hoped that sites might quickly be located so that testing could begin shortly after the start of the survey.

The transects from east to west are:

- (1) R57W, Township Freemont, SE $\frac{1}{4}$ of the SE $\frac{1}{4}$ Sect 36
- (2) R57W, Township Freemont, SE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Sect 34
- (3) R57W, Township Freemont, Sect NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Sect 32
- (4) R57W, Township Freemont SE $\frac{1}{4}$ of SE $\frac{1}{4}$ of Sect 19
- (5) R58W, Township Hope, SE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Sect 14
- (6) R58W, Township Hope, SE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Sect 4
- (7) R58W, Township Freemont, SE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Sect 30

The procedure for walking each transect was to form the crew up in skirmish line formation, the crew members spaced themselves around 15 meters from each other, and walked across the area in a series of sweeps. When a sweep was completed, the crew pivoted on an outside man, who retraced his own steps. The test excavations were in 1 meter by 2 meter pits, oriented north south, excavated in 10 cm. (4 inch) levels, unless natural levels intervened. All dirt was sifted through $\frac{1}{4}$ " mesh screen. Pits were skim shoveled using square nosed shovels. The test pits were located to provide as much average within a site as possible. 4 test pits were dug in each of the two sites ultimately tested.

Because of the shortage of time available for the survey, and the nature of the work to be done, it was felt that it was not possible to make surface collections in any way which would provide adequate control over provenience beyond from what 1/8 section the material came. Therefore, no surface collection was done. The materials retained came only from excavations. To have made surface collections would have required laying out

a grid and developing procedures for adequately sampling areas where collections were made. If surface collecting had been done without insuring proper levels of precision, any further work in the Coulee, and later analysis would be hindered, rather than helped.

The survey work began on May 26, 1975 at transect 1. By May 31, 6 of the seven transects had been completely walked. Two attempts were made to penetrate transect 6. The first attempt was on foot from the south rim of the Coulee, and after making $\frac{1}{2}$ mile of the 3 mile distance to be covered to get to the transect in $1\frac{1}{2}$ hours, the attempt was given up. A second attempt was made by 4 wheel drive vehicle along the north bank. After the crew had been stuck for 6 hours several miles from the transect before being towed out by a farmer, that attempt was abandoned.

As can be seen in Figures 1,2&3, a large part of the survey area was covered. That portion which was not covered proved to be almost inaccessible given road conditions, lack of roads and time. The area is in dense brush, and surface survey could not be successful in any case. Test pitting would be necessary to determine the archaeological content of that portion of the Coulee.

Following completion of the 6 transects and the failures to penetrate transect 6, the Assistant Field director, Mr. Anfinson, spent the rest of the time in finishing the coverage of the lower end of the Coulee, which is now virtually complete. The Project director selected 2 of the 19 sites located for testing, starting on May 31.

DESCRIPTIVE ARCHAEOLOGY

Nineteen sites were located within the survey area, and three outside the area (Maps 1,2,3,5). The site survey forms for these sites are located in Appendix A.

Rather than duplicate Appendix A by describing each site individually, I will here summarize the results of the surface survey. All sites located are surface sites. Neither test excavations, nor examination of stream channel cuts provided even meager hint of any subsurface sites. However, this does not mean there are none. The soil where we looked is almost entirely a dense clay (Walsh formation, unit 1, see Arndt, 1975) which made excavations very difficult. The test excavations which were conducted for checking subsurface extent of surface remains, not to locate deeply stratified sites. One promising locality for a possible stratified site is located in the southern half of transect 7 (Map 3). The locality is a large meadow, which covers two beautifully preserved terraces and bars. A quick test of the front slope of the terrace, which is the first above the modern flood plain indicates the matrix to be sand, rather than clay. The first terrace above the modern flood plain is the best locality for finding material. The only surface indications at this locality, however, are two circles of lush grass, which may be due to a variety of circumstances.

The surface remains which were located are generally light concentrations of crypto-crystalline cores and large flakes,

(many decortication flakes) with an occasional biface and scrapper. Three side notched projectile points and one rim sherd were the only exceptions to this.

No site contained other kinds of occupational debris such as fire cracked rock, pottery, clearly associated faunal remains, etc. One site, 32CV214, had a light scatter of river mussel shells.

The only possible indications of subsurface structural remains are two lush circles in the meadow at transect 7 (Map 3), and a series of depressions in the modern flood plain on the south bank of the Pembina in transect 1 (Map 1). These however, appear to be the result of recent earthmoving activity.

Despite attempts to avoid bias, our results reflect one major bias. Because of the inability to penetrate the western third of the valley, except for transect 7, and the heavy brush, which covers everything not farmed, all our sites are located in plowed fields. Some form of testing unplowed areas is necessary. Because of the intensive cultivation of two-thirds of the valley, we do have a good sample of the valley floor and the gentler slopes in the eastern 2/3 of the valley.

Given that caution, all of the sites are located 8 - 18 meters (20 - 60 feet) above the present flood plain, usually on the first terrace which corresponds in much of the valley to the 1050' elevation line. Along the edge of this terrace, and ridges and bars associated with it are found the densest concentrations of debris. The debris is also on the slope be-

low this terrace as would be expected in plowed fields subject to slope creep. On the slopes the material is sorted with cores closer to the top and flakes farther down. The material also is found on higher slopes behind this terrace, and in a few places, where the entire slope to the Coulee rim is farmed, extends up to the Coulee rim. Lithic debris was also found on the north side at the rim above a precipitous slope (Map 1).

The materials generally are found close to gravels which have been exposed by plowing. These gravels form Arndt's Walsh unit 4 (1975) and contain small crypto-crystalline gravels, as well as other kinds including granitic stones.

At 32CV210, a scatter of lithic debris is located immediately south of county road FAS 720 as it crosses the Pembina. Some 100 meters south is a concentration of bones, including Bovidae, Canidae and Odocoileus. These are not directly associated with the lithic debris. In no other case were faunal concentrations clearly associated solely with lithic concentrations. Rather, a scattering of long bones or teeth would be in the same general area, as were old crocks, mugs, salt shakers, shoe fragments, etc. The farmer (Mr. Danielson) who reported the locality to Mr. Anfinson said he had pitched seven large skulls into the river from that locality.

Of the 19 sites, two were selected for testing, 32CV201 and 32CV204, the Woodtick site and Carpenter site #1 respectively (figures 1 and 2). 32CV201, is like most of the sites, located between 20 and 50 feet above the present flood plain of the southbank of the Pembina river (Map 2). Like all these

sites, it is a surface scatter of lithic debris and core fragments. The debris are concentrated in two localities (Figure 1). South of the first locality is a peninsula of grass and oak trees which cover a low east west ridge. The ridge is pierced at its western end by a small nameless stream. Within the coulee of this stream are several terrace fragments, all of which beg to be tested. This site was chosen for excavation first because the wooded grassland, though containing a small house foundation seemed to have suffered minimum disturbance since the Euro-American occupation of the valley. (These fields in some places are only 35-40 years old.) Secondly, the grassy area was located next to a concentration of debris and cores in a plowed area. We hoped that this site would give us (1) some idea of the distribution of materials to be expected in an unplowed area, and (2) some features, hearths, ash, charcoal which might not survive plowing but which might suggest the nature of the occupation. As has been mentioned, no occupation debris other than one rim sherd, and some mussel shells were located by the surface survey.

32CV204 (Figure 2) is an open field, currently in summer fallow, which was first plowed 35 years ago by Mr. Lynn Carpenter. The site is on the north bank of the Pembina, on the west side of the county road as it crosses the Pembina four miles west of Walhalla. The site again is a concentration of detritus, cores, and small bifaces, including a single side notched projectile point. The material is scattered in the field between the

first terrace above the modern flood plain and the second, and extending up and west through the field to elevation 1050' above sea level. This site was chosen because it had, at the time, the densest concentration of materials, and the most varied.

It was excavated first, to determine vertical extent of the material.

Excavations at 32CV204 yielded 10 artifacts one of which was a large chert biface, with convex cross-section and leaf shaped outline.

The rest of the material were cores, and core fragments, and a single endscraper. The side notched point was located in surface survey and not retained. The excavations were in two areas. The first was placed on the slope between the first and second terraces (figure 2), and the second along the second terrace.

The soil here may be divided into two zones. The first is the plow zone, about 20 cm. (8 in.) deep and the second is the first unit of the Walsh formation (Arndt, 1975a, pg. 26) which is a dense, gray clay with little or no coarser particles, at least at its surface. Testing in two of the four pits was carried 20-30 cm. (8-12 inches) below the plow zone into the Walsh formation clays which proved sterile. The clays contained no materials at all, and no indications of disturbance below the marks of Carpenter's plow. The plow zone also lacked anything beyond the tools mentioned above and listed in Appendix B.

Two possible fire cracked rocks were the only other possible

occupation debris.

The excavations at 32CV201 were equally disappointing. 9 artifacts were recovered including two basally indented arrow-head tang fragments, and a beaked scrapper. The site contained virtually no detritus or flakes. There were no other indications of occupation beyond the tools. Two of the four pits were taken down almost half a meter, with 20-30 cm. (8-12 inches) in the Walsh clays which again proved sterile. Both encountered slope wash from above in the form of small to medium gravels (Walsh unit 4, Arndt, 1975a, pg. 28.) At 32CV201, in the test locality, the soil has an upper organic horizon displaying fine to medium granular structure, and clay texture, resting on Walsh formation clays, which are gray and display no obvious signs of pedogenesis, though there may be some soil structure developing. All the materials at 32CV201 are either on the surface or in the organic horizon.

At both sites materials recovered included finished artifacts, cores or core fragments, and large flakes. No small flakes were found. The large flakes carried cortex from the rock from which they were struck, suggesting their removal early in the tool making procedures. Little identifiable bone was recovered, and that was either deer or bovid. Both sites lacked any features whatsoever.

The concentration of tools at 32CV201 in the undisturbed area was as light as in the plowed areas, suggesting that the light concentrations of materials found reflects not only plow-

ing, but the actual distribution.

At both localities, materials were usually found closest to the surface. One artifact at each, a biface at Carpenter, and a grooved stone at Woodtick Lane from the interface of soil or plow zone with clays. Nothing was found in the clays.

SUMMARY AND RECOMMENDATIONS

The materials located and recovered by the 1975 survey follow the following patterns:

- (1). Light, surface distribution of lithic debris, primarily decortication flakes, cores, and very few tools.
- (2). No habitation debris in the form of hearth remains, structured remains and the like.
- (3). Materials are at their densest about 30-40 feet above the river (1020-1060ft elevation) along the edges of terraces, but in some cases extend unbroken to the Coulee rim. Major concentrations are at the edge of the first terrace above the flood plain.
- (4). There are no good direct associations between faunal and artifactual material.

All of this suggests the valley was used primarily as a source for lithic raw material. Adjacent areas to the east in the woodlands of North Central Minnesota, (A. Brew, 1974) and the Southwest in Sheyenne Valley of North Dakota (Wood, 1971) contain villages and large camps. This pattern is not duplicated in the Pembina Coulee. However, it was reported to us that the present town of Walhalla covers a village or camp (Urlaub, 1975). The Catholic church is reported to rest on a number of pre-European burials. There is in the area at least

one large mound (Map 2) and there may be others. There is a large concentration of lithic debris (32PE201) overlooking the Pembina Delta on the southside of the river, just off North Dakota highway 32. (map 1) Thus it may be that the Pembina Coulee itself was not utilized for residence.

Farmers who cleared the valley claim the brush was too thick to hunt or live in. We can attest to the extreme difficulty of movement in areas without at least game trails.

A difficulty in analyzing the results of a survey such as this, beyond the obvious one here of the shortage of time prohibiting testing on any but the smallest scale, is that we are operating within a research unit which is small, and whose location may not in anyway provide a sample of the aboriginal land use system. For this reason, and because we literally only scratched the surface of the Coulee in the brief period available to us, I can make no judgment about the significance of these materials. Such judgments can only be made after more intensive and extensive work. All the sites located will be in the projected reservoir, therefore, some mitigation program will eventually be necessary.

The 1975 survey was a valuable archaeological reconnaissance of the valley, and provides a useful basis for recommendations. The major problems which need to be solved are these:

- 1.) What time depth, if any is there to the native American utilization of the valley.
- 2.) How did the valley fit into the land and resource usage system of the native Americans of the area.

- a.) Was it a limited use hinterland for camps and villages elsewhere
- b.) Were major camps and villages located in the coulee
- c.) If only a limited use area, was this usage limited to one activity, or were there several activities

Only with answers to these questions can a judgment of significance be made. To answer these questions the following recommendations are made:

A.) Survey

- (1) A program of random sampling of brushy and woody areas through test pits and auguring should be conducted. This will fill in the spatial gap left by the 1975 project, and provide a means of discovering what deeply covered material, if any, there may be.
- (2) Auguring be extended into other areas already surveyed to aid in locating any possible deeply buried site. Arndt, (1975b) has suggested anything more than 200 years old near the coulee walls would be deeply buried by colluvium by now. The only practical way of checking these areas would be either augurs or pits. The clay matrix of valley may inhibit or prevent extensive auguring or pitting; its consistency is that of rubber.

(3) A program of controlled surface collection of known sites be conducted to retrieve artifacts in a precise fashion. This would provide information about multiple vs. limited use. With the surface collection, each site should be mapped.

B.) Excavations

(1) Test excavations of known sites should be extended to provide a better sample of the Coulee floor.

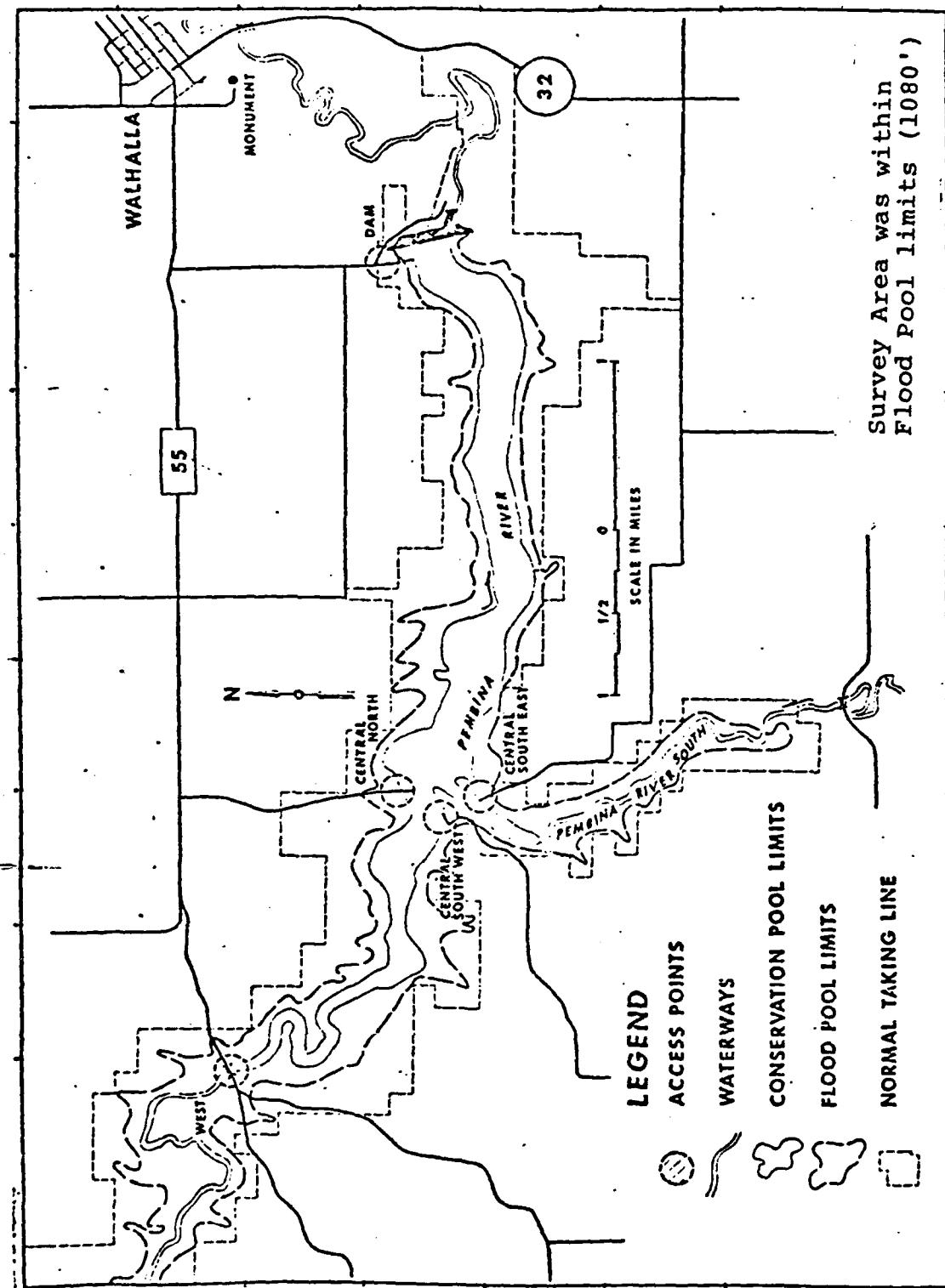
These should be both plowed and undisturbed localities and be done in conjunction with the surface collection. Both this program and the intensive surface collection will be hampered if the fields are still in crop production.

(2) Test excavations should be conducted in localities with no surface indications. These localities should be selected on the basis of several models of possible settlement pattern in the Coulee. The source of these models is not relevant here.

The broad programs outlined above would allow judgments of significance to be made which would guide mitigation proposals. However, to be at all successful, such a program must have a reasonable amount of time and manpower. The amount of time allowed for the 1975 project would be totally inadequate.

Beyond the needs of mitigation etc., the valley appears to be able to provide valuable information or raise intriguing

questions about a relatively unknown corner of the northern plains, and to provide an interesting theoretical and methodological testing ground. Whatever programs are initiated for further work, they should provide greater scope for the solution of problems through field work and analysis and should be developed with that in mind.



MAP 5

DISTRIBUTION OF SITES

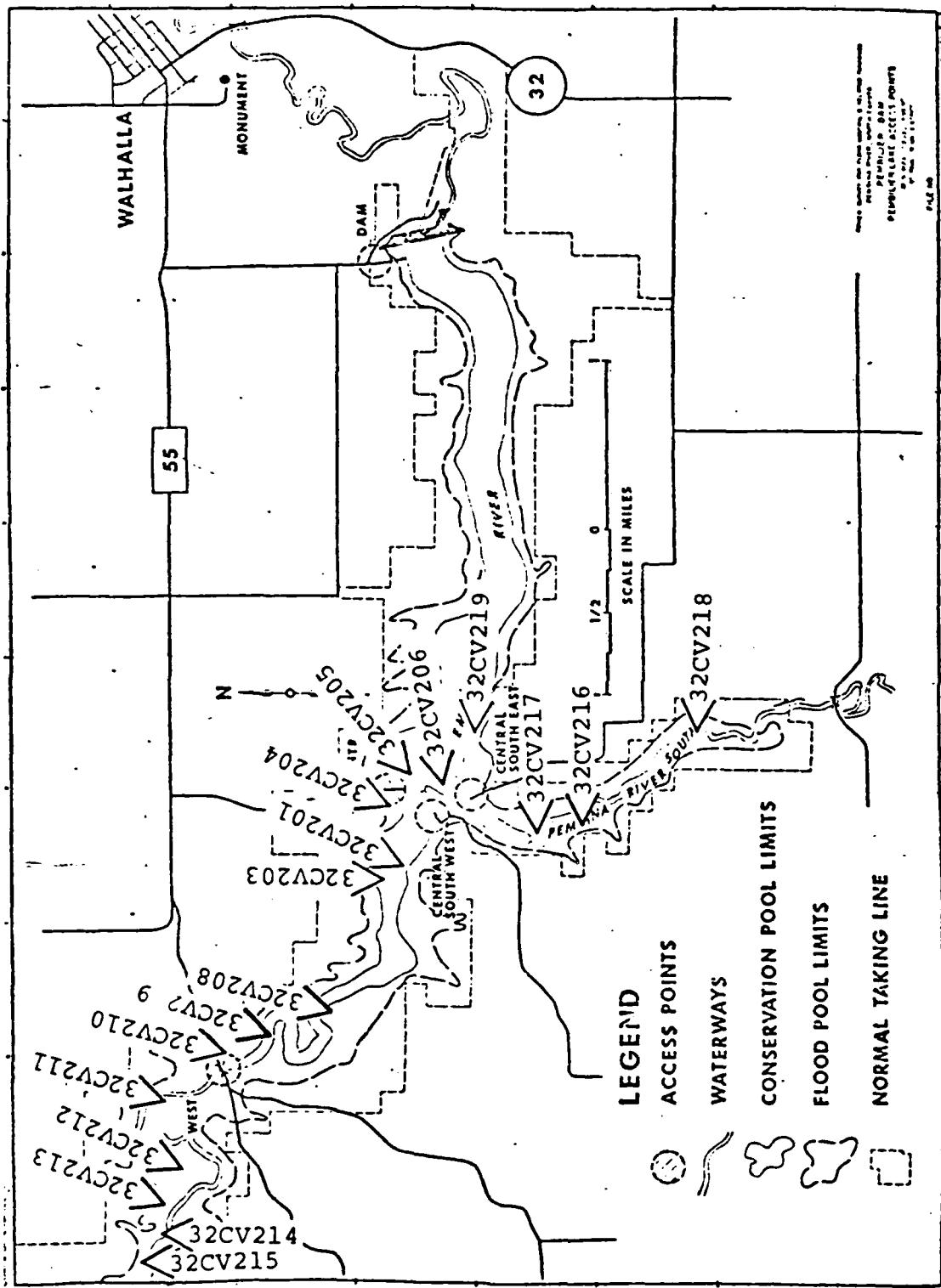


FIGURE 1

VIEW OF CARPENTER SITE # 1
SHOWING AREA EXCAVATED

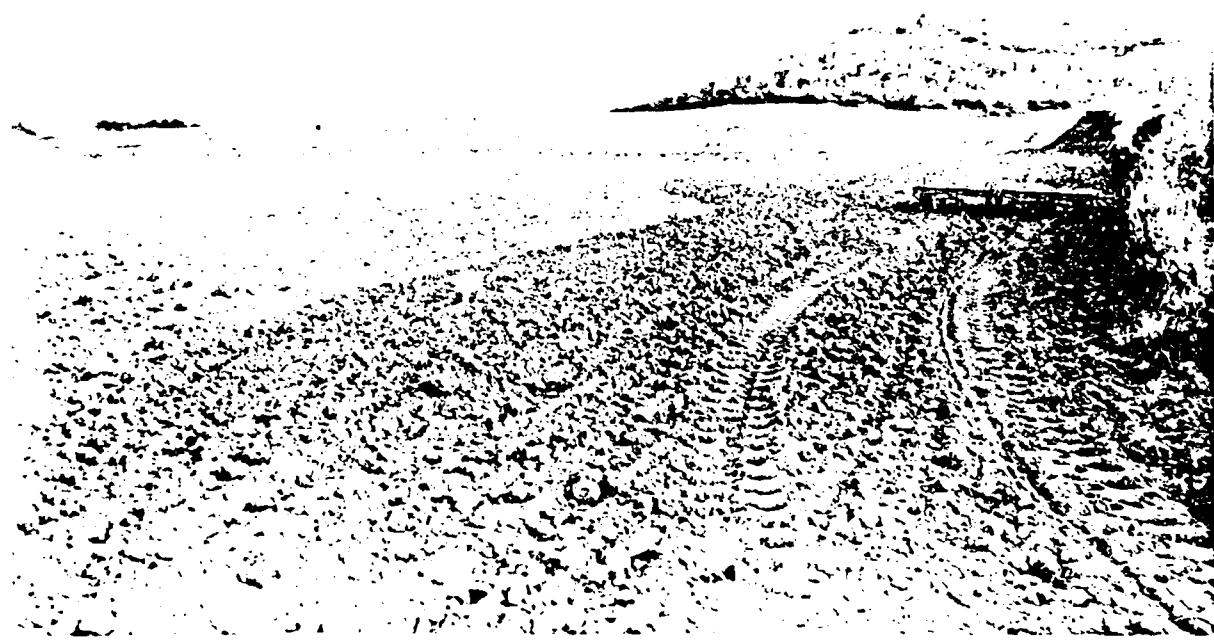


FIGURE 2

VIEW OF WOODTICK SITE



FIGURE 3

VIEW OF CARPENTER SITE
LOOKING NORTH FROM SOUTH BANK



FIGURE 4

VIEW OF EXCAVATIONS AT CARPENTER

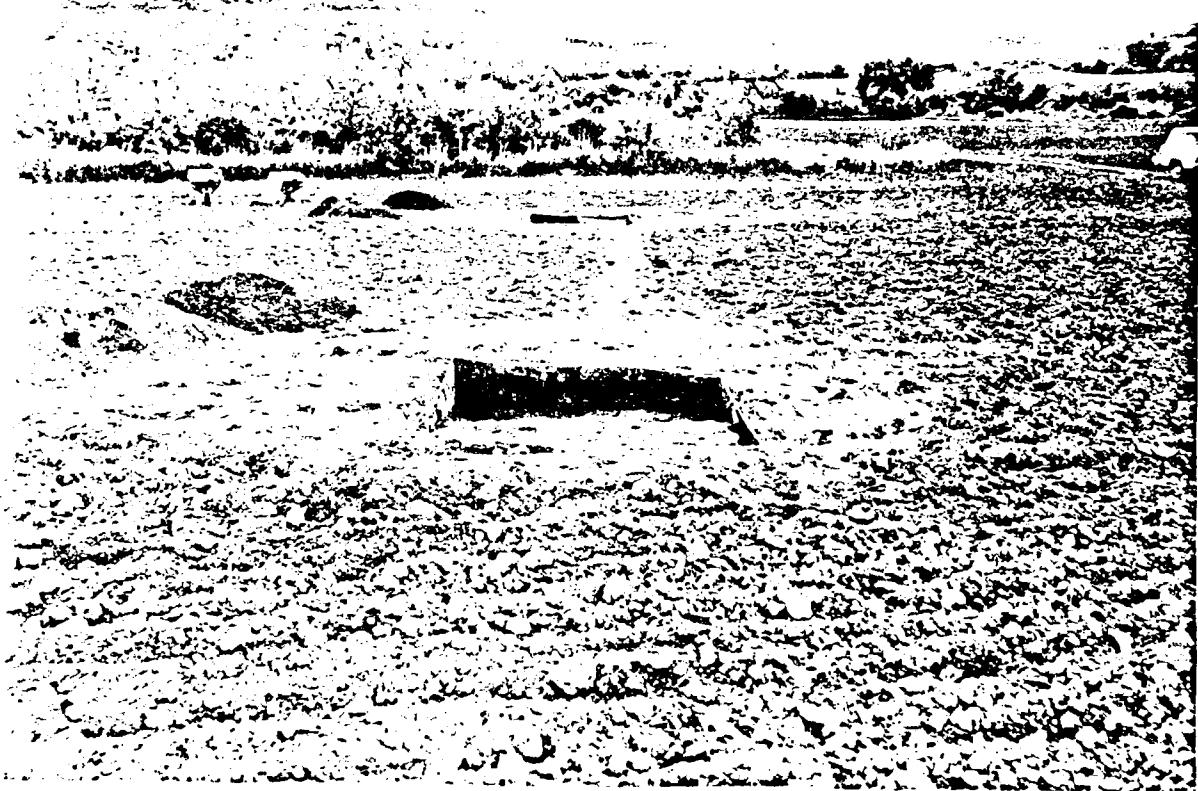


FIGURE 5

VIEW OF EXCATATIONS AT WOODTICK



FIGURE 6

PIT SHOWING BOUNDARY BETWEEN SOIL AND CLAY
OF THE WALSH FORMATION, UNIT 1 AT 32CV201

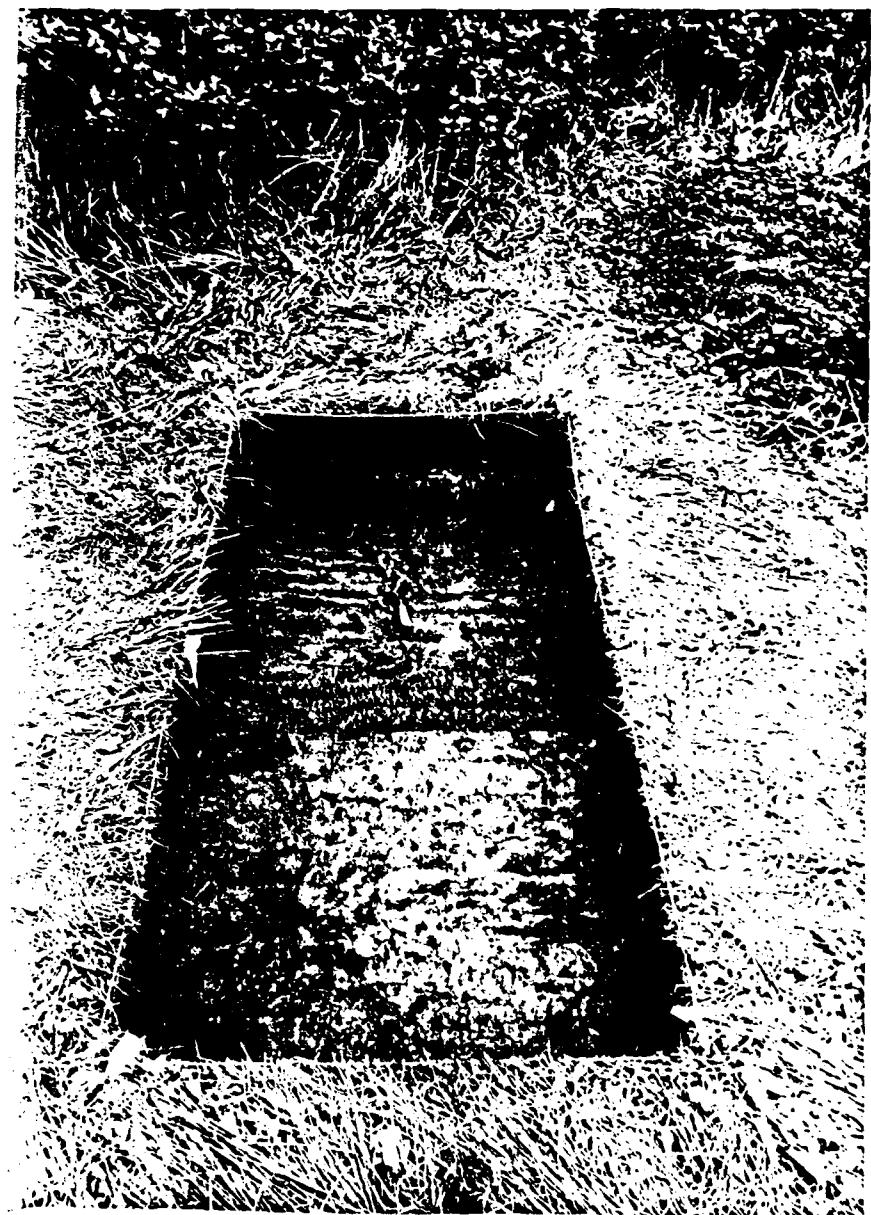


FIGURE 7

GENERAL VIEW OF RIVER LOOKING
EAST FROM DAM SITE



FIGURE 8

VIEW UP RIVER FROM DAM SITE



FIGURE 9

VIEW OF TERRACE IN TRANSECT 7
LOOKING WEST



FIGURE 10

OVERLAND ROUTE INTO TRANSECT 6



FIGURE 11

PEMBINA RIVFR



FIGURE 12

GENERAL VIEW OF THE PEMBINA



FIGURE 13

VIEW OF 32CV210



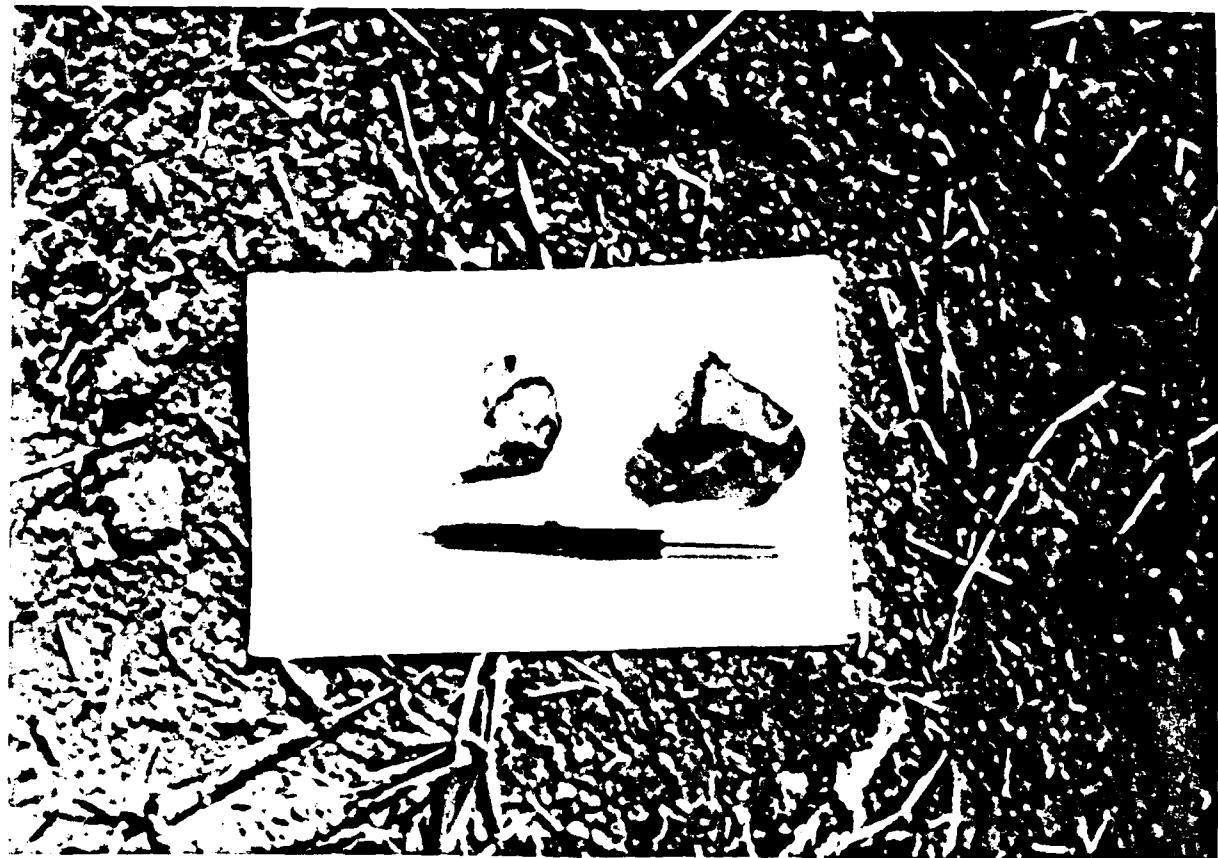
FIGURE 14

VIEW OF 32CV212



FIGURE 15

TYPICAL CHALCEDONY MATERIAL
FOUND IN THE COULEE



REFERENCES CITED

S. Michael Arndt

1975a Geology of Cavalier and Pembina Counties,
North Dakota Geological Survey
Bulletin 62, Part 1

1975b Personal Communication

Brew, Allen

1974 Personal Communication

Urlaub, Ed.

1975 Personal Communication

Wood, W. Raymond

1971 Biesterfeldt: A Post Contact
Coalescent Site on the Northeastern Plains.
Smithsonian Contributions to Anthropology,
Number 15.

APPENDIX A

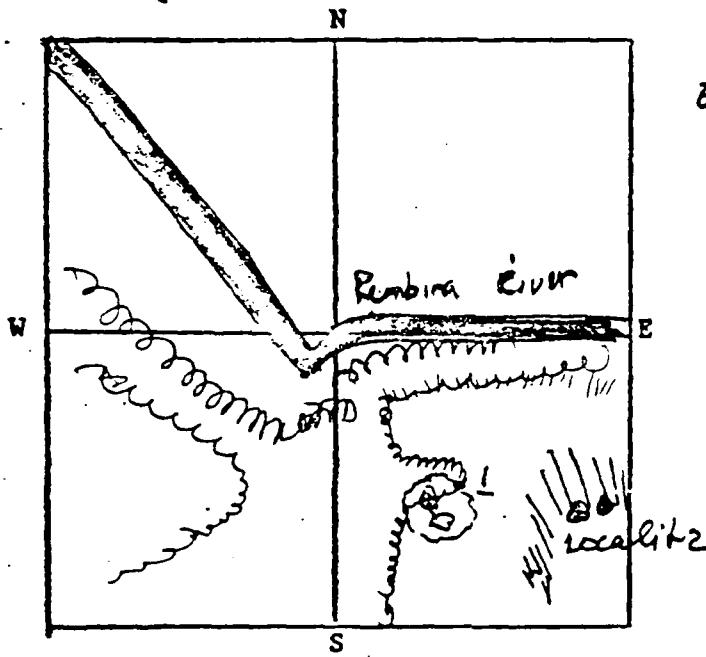
SITE SURVEY FORMS

US ARMY CORPS OF ENGINEERS
ST PAUL DISTRICT
SITE SURVEY FORM

SCOUT
North Dakota
State _____
County Cavalier
CE Project Pembilier
Contract # DACW37-75-C-0160
Drainage Pembina River

1. Type of site (prehistoric-mound, habitation, historic) Prehistoric Hab.
2. Map reference (CE, USGS) USGS Vang Quadrangle 7.5 series 144A
3. Location: Latitude 48 54' Longitude 98 2' 30" E Sec NE Section 32
Township 163N Range 57W
4. Land owner and address Lynn Carpenter, Rr Walhalla, N.D.
5. Site description (vegetation, topo, area, etc) Field is plowed and is located between 1st terrace above flood plain and extends up to about 1400 ft. Immediately above the terrace are two small localites, one of the eastern side of the field, the other on the western, next to a small peninsula of oak parkland. About 10 meters south of the peninsula is a small grassy area containing granitic boulders. The site is on the south side of the Pembina.
6. Sketch map of site location (indicate chief topo features, houses, roads, section numbers, outline of site). Consider square as 1 section or $\frac{1}{4}$ sec. or 1/8 sec. INCLUDE A SCALE!

Full sq = $\frac{1}{4}$ section



Legend and Comments:

⊕ = lithic debris

lithic material is more or less continuous to the top of the coulee in this immediate area.

7. Project Director K.M. Ames
8. Ass't
9. Form Recorder Ames
10. Field Director Scott Anfinson
11. Date 5/30 75

11. A detailed map of the site should be attached.

Unlisted Inc to Mr to Ames

MOORHEAD STATE COLLEGE ARCHAEOLOGICAL SITE SURVEY FORM

1. Location and access. The site is located on the south side of the Pembina in a planted field. The cultural materials are scattered in two localities, one on a sharp slope on the eastern edge of the field below the road access. The second is between a small grassy circle and a peninsula into the field of oak and grass. See comments for access

R 57W Tshp 163N Sect. 32 $\frac{1}{4}$ NE 48° 54' " N. 98° 2' 30" W.

2. Site name. Woodtick

3. Previous designations. none

19. Owner(s) / tenant(s) past and present

Lynn Carpenter.

4. Type. Surface site, containing lithic debris, two projectile fragments etc.

5. Dimensions. unknown

20. Attitude to excavation. excellent

6. Depth of deposit. 10cm

21. Camping facilities. fair

7. Elevation. 1020' to 1400'

8. Water. near Pembina River

22. Historically territory of Ojibwa and

9. Vegetation on site. flooded field, Oak and grass

Dakota Indians.

10. Surrounding vegetation. Oak, Birch

23. Site was/was not occupied by Indians in historic

times until

24. Informants. none

11. Fill of site. Humus layer, Walsh formation, white

25. Map. USGS Vang Quad. 7.5 series 144A

12. Subsoil and surrounding soil. Walsh formation

26. Air photo.

13. Burials. none observed

27. Photographs. MSC

14. Habitations. none observed

28. Published references. none

15. Other features. none

29. Remarks and recommendations. Some further

16. Present condition. part of the site has been flooded, part is undisturbed

testing is necessary in undisturbed

17. Possibility of future disturbance. lower areas will be flooded by projected reservoir

areas. Site is approached by

18. Known finds and present location. 9 artifacts including two projectile point

taking western fork of road at

fragments. one beaded scraper

Carpenter's farm and following

and lithic debris, all at

it up the slope beyond R.

19. Site Note. Thompson's farm, then

20. Reported by. Scott Arfinson

21. Observed by. K.M. Ames

22. Recorded by. 5/30/75

23. Date.

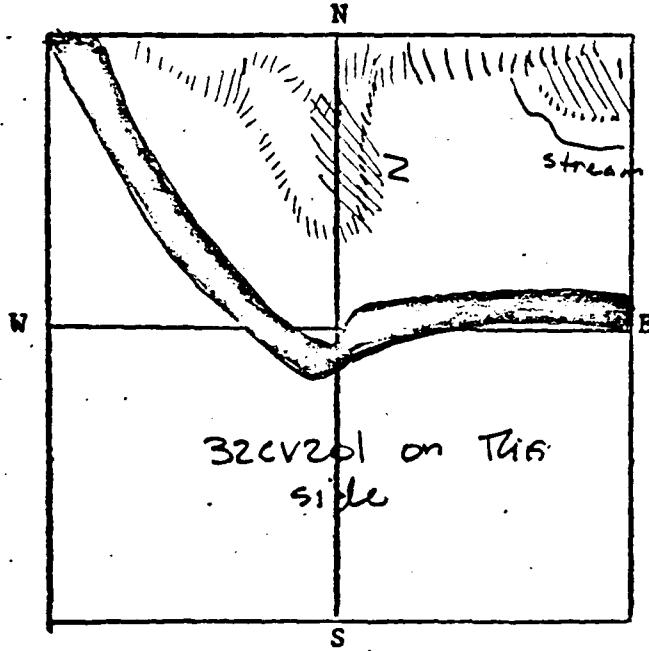
drive across field and park. Walk east, following north edge of fields around and down slope to a small farm road through a line of woods. Next field down contains the site. However there is material all the way up.

US ARMY CORPS OF ENGINEERS
ST PAUL DISTRICT
SITE SURVEY FORM

State North Dakota
County Cavalier
CE Project Pembina
Contract # D4CV32-75-6-0160
Drainage Pembina

1. Type of site (prehistoric-mound, habitation; historic) Prehistoric 2
USGS Vang Quad, 7.5 series #144A
2. Map reference (CE, USGS) _____
3. Location: Latitude 48°54' Longitude 98°02' $\frac{1}{2}$ Sec NE Section 32
163N Township _____ Range 57W _____
4. Land owner and address Magnus Eyrickson, Walhalla, North Dakota
5. Site description (vegetation, topo, area, etc) 2 localities. Eastern is located on low terrace just north of small stream at eastern extremity of field. Second is on the nose of the N-S ridge which extends into the field about midway, and 100 meters+ from the first locality to the west. Both localites are lithic scatters, with flakes, core fragments and scrappers. The site is on the North bank of the Pembina.
6. Sketch map of site location (indicate chief topo features, houses, roads, section numbers, outline of site). Consider square as 1 section or $\frac{1}{2}$ sec. or 1/8 sec. INCLUDE A SCALE!

Full square is NE $\frac{1}{4}$, sect. 32



Legend and Comments:

hash lines indicate
lithic concentration
locality 2 is the densest
and the largest.

Site is currently seeded

7. Project Director Y. M. Ames
8. Field Director S. Anfinson
9. Form Recorder Ames
10. Date 5/30/75

11. A detailed map of the site should be attached.

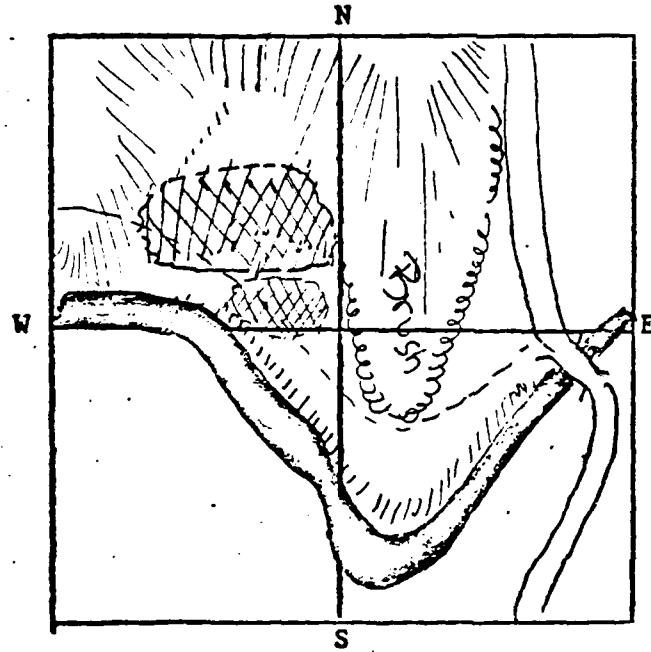
Unlisted Inc to Mr Ames

US ARMY CORPS OF ENGINEERS
ST PAUL DISTRICT
SITE SURVEY FORM

32CV204
State North Dakota
County Cavalier
CE Project Pembilier
Contract # DACW37 75 C 0162
Drainage Pembina

1. Type of site (prehistoric-mound, habitation; historic) Prehistoric ?
2. Map reference (CE, USGS) USGS Vang Quad, 7.5 series #1444
3. Location: Latitude _____ Longitude _____ $\frac{1}{2}$ Sec NE Section 33
Township 163N Range 57W
4. Land owner and address Lynn Carpenter, Walhalla, North Dakota.
5. Site description (vegetation, topo, area, etc) The site is in a plowed, immediately west of the Pembina River Bridge, near the confluence with the Little South Pembina, about 70 m. west of the road. The site extends up from about 1000' to almost the 1050 terrace. The material found consists of cores flakes, bifaces, one side notched projectile point. The material is located both on the lower terrace and the slope in front and behind the Terrace.
6. Sketch map of site location (indicate chief topo features, houses, roads, section numbers, outline of site). Consider square as 1 section or $\frac{1}{2}$ sec. or $\frac{1}{8}$ sec. INCLUDE A SCALE!

Full square is one eighth section



Legend and Comments:

 = Area of
wavy line or Concentration

7. Project Director K.M. Ames
8. Field Director Scott Anfinson
9. Form Recorder K.M. Ames
10. Date 5/29/75
11. A detailed map of the site should be attached.

Unlisted Inc to 1tr to Ames

MOORHEAD STATE COLLEGE ARCHAEOLOGICAL SITE SURVEY FORM

1. Location and access. Site is on the north bank of the Pembina in a seeded field. Access is from the county road which turns south 8/10 of a mile east of the Walhalla country and crosses the Pembina a mile and a half south. Turn west on farm road immediately north of the bridge. It will cross one field and skirt the second. The site is in the 3rd, about 8/10 west of the county road and bridge.

R 57W Twp 163N Sect. 32 1/4 NE 48° 54' "N. 98° 02' "W.

2. Site name n none

19. Owner(s) tenant(s) past and present

Magnus Eyrickson

3. Previous designations none

4. Type surface site, with lithic debris

5. Dimensions 150mx50m (to include both localities)

20. Attitude to excavation unknown

6. Depth of deposit unknown

21. Camping facilities none

7. Elevation 1050 ft.

22. Historically territory of Ojibwa, and

Dakota Indians.

8. Water Pembina River

23. Site was/was not occupied by Indians in historic times until ?

9. Vegetation on site planted

24. Informants none

10. Surrounding vegetation Oak brush

25. Map USGS Vang, series 7-5, #144A

11. Fill of site clay and gravel

26. Air photo

12. Subsoil and surrounding soil Walsh formation

27. Photographs Moorhead State Col.

13. Burials unknown

28. Published references none

14. Habitations none observed

29. Remarks and recommendations 2nd locality should at least be surface collected, and perhaps tested

15. Other features none

16. Present condition plowed and planted

17. Possibility of future disturbance will be under Pembilier réservoir reservoir

18. Known finds and present location materials left in situ

30. Reported by Scott Anfinson

31. Observed by Scott Anfinson

K.L. Ames

32. Recorded by

33. Date 5/30/75

(Continue or expand on back if necessary. Sketch map is desirable.)

Site No.

MOORHEAD STATE COLLEGE ARCHAEOLOGICAL SITE SURVEY FORM

1. Location and access Turn south onto county road 8/10 miles east of Walhalla country club from county ~~7AS720~~ road FAS720, follow road to Pembina Bridge, turning west immediately north of the bridge onto farm road proceed about 70 m. west until the peninsula of brush is passed. Site is on the north side bank of the Pembina.

R 57W Tshp 163N Sect. 33 $\frac{1}{4}$ NE ° ° ° ° N. ° ° ° ° W.

2. Site name Carpenter site, locality 1 19. Owner(s)/tenant(s) past and present Lynn Carpenter

3. Previous designations none

4. Type surface lithic scatter

5. Dimensions 100m x 100m

6. Depth of deposit 20cm.

7. Elevation 1000-1050'

8. Water Pembina River

9. Vegetation on site none

10. Surrounding vegetation Brush

11. Fill of site Walsh Formation clays

12. Subsoil and surrounding soil Walsh Formation clays

13. Burials none observed

14. Habitations none

15. Other features none

16. Present condition summer fallow

17. Possibility of future disturbance Will be covered by Pembilier revervoir

18. Known finds and present location Core fragments, one biface, at Moorhead State College

30. Reported by Karl Kartes
Scott Anfinson

31. Observed by

32. Recorded by K.M. Ames

33. Date 5/29/75

(Continue or expand on back if necessary. Sketch map is desirable.)

DESCRIPTION OF

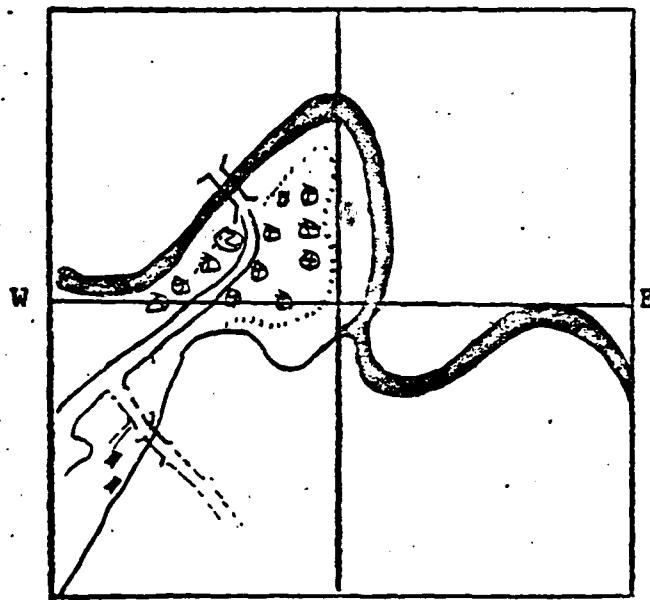
Site No.

US ARMY CORPS OF ENGINEERS
ST PAUL DISTRICT
SITE SURVEY FORM

32CV205
State North Dakota
County Cavalier
CE Project Pembilier
Contract # DACW37-75-C-0169
Drainage Pembina

1. Type of site (prehistoric-mound, habitation; historic) Prehistoric hab.
2. Map reference (CE, USGS) USGS Vang Quad, 7.5 series #144A
3. Location: Latitude 48 54' Longitude 98 01' $\frac{1}{2}$ Sec NE Section 33
Township 163N Range 57W
4. Land owner and address Lynn Carpenter, Rr. Walhalla, N.D.
5. Site description (vegetation, topo, area, etc) The site is located on a plowed field, on the 1st terrace above the flood plain ~~immediately north of the confluence of the Pembina with the Little South Pembina. Site partially cut by county road.~~
6. Sketch map of site location (indicate chief topo features, houses, roads, section numbers, outline of site). Consider square as 1 section or $\frac{1}{2}$ sec. or 1/8 sec. INCLUDE A SCALE!

Full square = ~~1~~ section



Legend and Comments:

~~⊕~~ = lithic debris

The heaviest lithic concentration is on both sides of the gravel road along the terrace. A triangular, corner notched projectile point was seen at point 1, a second corner notched poi was seen at point 2.

7. Project Director K.M. Ames
8. Field Director Scott Anfinson
9. Form Recorder Anfinson
10. Date 6/3/75

11. A detailed map of the site should be attached.

Unlisted Incl to Mr to Ames

MOORHEAD STATE COLLEGE ARCHAEOLOGICAL SITE SURVEY FORM

1. Location and access. The site is located on a terrace immediately north of the confluence of the Pembina and the Little South Pembina Rivers, and south of the Pembina River Bridge. The material is on both sides of the road in the field.

R 57W Twp 16N Sect. 33 1/4 NE

48° 54' " N. 98° 01' " W.

2. Site name Carpenter Site, locality 2

19. Owner(s) ~~xxx~~ tenant(s) past and present

3. Previous designations none

Lynn Carpenter

4. Type Prehistoric surface site with lithic debris and tools including 2 projectile pts.

20. Attitude to excavation excellent

5. Dimensions 200mx200m

21. Camping facilities none

6. Depth of deposit unknown

22. Historically territory of Ojibwa and Dakota Indians.

7. Elevation 1000'-1010'

23. Site was/was not occupied by Indians in historic times until ?

8. Water Pembina and Little Pembina Rivers

24. Informants none

9. Vegetation on site n one,

25. Map USGS Vang Quad, 7.5, map # 144A

10. Surrounding vegetation brush

26. Air photo

11. Fill of site Walsh formation, unit 1 clays

27. Photographs MSC

12. Subsoil and surrounding soil same as 11

28. Published references none

13. Burials none observed

29. Remarks and recommendations should be intensively collected and tested

14. Habitations none observed

15. Other features none observed

16. Present condition plowed

17. Possibility of future disturbance will be flooded by Pembilier Reservoir

18. Known finds and present location all materials 0. Reported by left in place

31. Observed by Scott Anfinson
Anfinson

32. Recorded by

33. Date 6/3/75

(Continue or expand on back if necessary. Sketch map is desirable.)

Site No.

US ARMY CORPS OF ENGINEERS
ST PAUL DISTRICT
SITE SURVEY FORM

32CV206
State North Dakota
County Cavalier
CE Project Pembilier
Contract # DACW37-75-C-0169
Drainage Pembina

1. Type of site (prehistoric-mound, habitation; historic) prehistoric hab.

2. Map reference (CE, USGS) USGS Vang Quad, 7.5 series map #144A

3. Location: Latitude 48 54' Longitude 98 01' $\frac{1}{2}$ Sec SE Section 33

Township 163N Range 57W

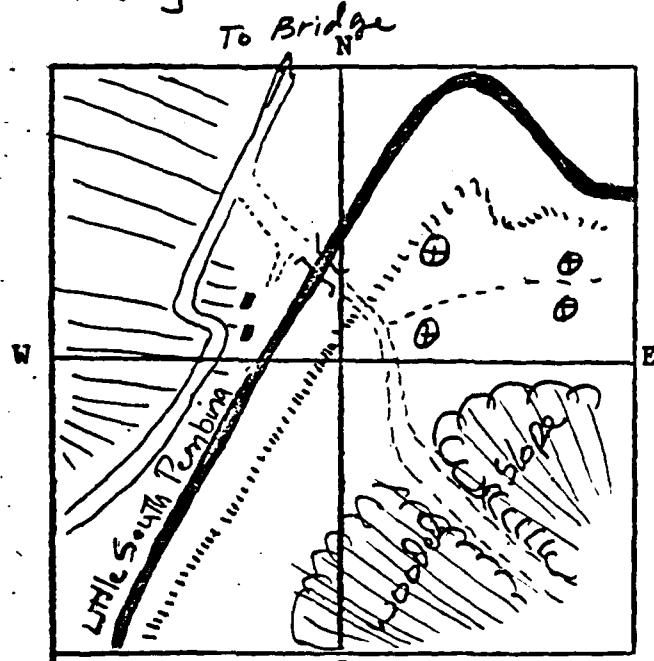
4. Land owner and address Lynn Carpenter, Rr Walhalla, N.D.

5. Site description (vegetation, topo, area, etc) The site is on the

1st and 2nd terraces above the flood plain in a plowed field
south east of Little South Pembina, immediately across from
Lynn Carpenter's farmstead. There are wooded slopes to the
south and a pasture to the west.

6. Sketch map of site location (indicate chief topo features, houses, roads, section numbers, outline of site). Consider square as 1 section or $\frac{1}{2}$ sec. or 1/8 sec. INCLUDE A SCALE!

Full square = $\frac{1}{2}$ sections



Legend and Comments:

\oplus = lithic debris

Lithic debris are scattered throughout the terrace with few areas of concentration. Site may have extended west across gravel road and onto terrace now in pasture.

7. Project Director K.M. Ames 9. Form Recorder Anfinson
Ass't

8. Field Director Scott Anfinson 10. Date 6/2/75

11. A detailed map of the site should be attached.

Unlisted Incl to 1hr to Ames

MOORHEAD STATE COLLEGE ARCHAEOLOGICAL SITE SURVEY FORM

1. Location and access. The site is located on 1st and second terraces above modern flood plain in a plowed field on southeast side of Little South Pembina River, east of the road and directly across the river from Lynn Carpenter Farmstead. There are wooded slopes south of the site and a pasture to the west, across the gravel road.

R 57W Tshp 163N Sect. 33 4 SE 48 54 98 01 N. 00 W. 00

2. Site name Carpenter Site, locality 3 19. Owner(s)/tenant(s) past and present Lynn Carpenter

3. Previous designations none

4. Type Prehistoric lithic material on the surface in scatter

5. Dimensions unknown

6. Depth of deposit unknown

7. Elevation 1010'

8. Water Little South Pembina

9. Vegetation on site open field

10. Surrounding vegetation Brush, Oaks open meadow

11. Fill of site unknown

12. Subsoil and surrounding soil Unknown, probably Walsh or Pierre formations

13. Burials none observed

14. Habitations none observed

15. Other features none observed

16. Present condition plowed, cut by gravel road

17. Possibility of future disturbance will be covered by waters of Pembilier reservoir

18. Known finds and present location all material left in situ 18. Reported by _____

31. Observed by Scott Anfinson

32. Recorded by Anfinson

33. Date 6/2/75

(Continue or expand on back if necessary. Sketch map is desirable.)

MOORHEAD STATE COLLEGE ARCHAEOLOGICAL SITE SURVEY FORM

1. Location and access Site is located south bank of the Pembina River.

Turn south off county road FAS720 on the west Bank of the Pembina and follw the farm road south (see accompanying map)

R 57W Tshp 163N Sect. 29 1/4 SW 48° 54' N. 98° 03' W.

2. Site name none

19. Owner(s)/tenant(s) past and present

Vernon Bennett

3. Previous designations

4. Type surface scatter of bone and lithic material

5. Dimensions 200 sq meters

20. Attitude to excavation unknown

6. Depth of deposit unknown

21. Camping facilities

7. Elevation 1050'

8. Water Pembina River

22. Historically territory of Ojibwa and Sioux
(Dakota) Indians.

9. Vegetation on site

23. Site was/was not occupied by Indians in historic times until

24. Informants none

10. Surrounding vegetation Brush

25. Map USGS Vang Quad. 7.5 series #144 A

unknown, probably

26. Air photo

11. Fill of site Walsh Formation 1

27. Photographs MSC

28. Published references none

US ARMY CORPS OF ENGINEERS
ST PAUL DISTRICT
SITE SURVEY FORM

32CV208
State North Dakota
County Cavalier
CE Project Pembillier
Contract 5ACW37-75-C-0169
Drainage Pembina

1. Type of site (prehistoric-mound, habitation; historic) prehistoric
2. Map reference (CE, USGS) USGS Vang Quad, 7.5 series #144A
3. Location: Latitude 48 54' Longitude 98 03' $\frac{1}{4}$ Sec SW Section 29
Township 163N Range 57W
4. Land owner and address Vernon Bennett RR Walhalla, N.D.
5. Site description (vegetation, topo, area, etc) Site is located on 1st terrace above the river, in a wheat field with wooded slopes in front (north)
6. Sketch map of site location (indicate chief topo features, houses, roads, section numbers, outline of site). Consider square as 1 section or $\frac{1}{4}$ sec. INCLUDE A SCALE!
full square equals $\frac{1}{16}$ section

N

W E S N

Legend and Comments:
Ⓐ = lithic debris
Ⓑ = bone debris

There appear to be 3 main concentrations, #2 the heaviest although #3 appears to be a manufacturing station with hammer stones present.

7. Project Director K.M. Ames
8. Ass't
9. Form Recorder Anfinson
10. Field Director Scott Anfinson
11. Date 6/1/75

11. A detailed map of the site should be attached.

Unlisted Inc to Mr Ames

US ARMY CORPS OF ENGINEERS
ST PAUL DISTRICT
SITE SURVEY FORM

State North Dakota

County Cavalier

CE Project Fertilizer

Contract # DACW37-75-C-0169

Drainage Pembina

1. Type of site (prehistoric-mound, habitation; historic) prehistoric hab.

2. Map reference (CE, USGS) USGS Vang N.D. 7.5 series #144A

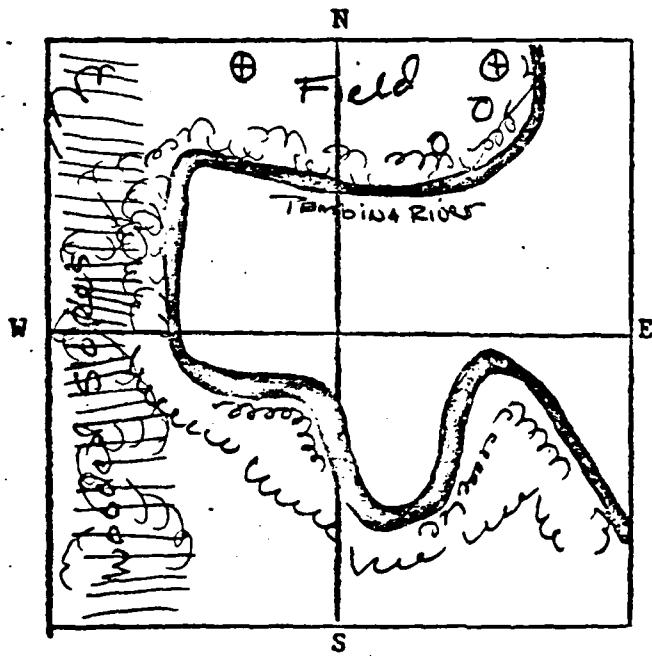
3. Location: Latitude 48 55' Longitude 98 03' $\frac{1}{4}$ Sec SW Section 22
Township 163N Range 57W

4. Land owner and address Vernon Bennett, Pr, Walhalla N.D.

5. Site description (vegetation, topo, area, etc) The site is on the first terrace above the river on the south bank, in a wheat field, with wooded slopes to the south and on either side of the field, which is ~~near~~ ~~60~~ a large east west meander in the river

6. Sketch map of site location (indicate chief topo features, houses, roads, section numbers, outline of site). Consider square as 1 section or $\frac{1}{4}$ sec. or $1/8$ sec. INCLUDE A SCALE!

Full square = $\frac{1}{4}$ section



Legend and Comments:

\oplus = lithic debris
 \circ = bone debris

two dark brown chalcedony flakes and a quartzite flake were found. Bone remains of several individuals of Bovids present.

7. Project Director K. M. Ames 9. Form Recorder Scott Anfinson
Ass't
8. Field Director Scott Anfinson 10. Date 6/1/75

11. A detailed map of the site should be attached.

Unlisted Znc1 to 1tr to Ames

MOORHEAD STATE COLLEGE ARCHAEOLOGICAL SITE SURVEY FORM

1. Location and access. Site is located on the south bank of the river on a large meander about a $\frac{1}{2}$ mile south of county road FAS720 as it crosses the Pembina River. Access is by foot along the west bank of the River from the bridge. The site is located on the first terrace above the modern flood plain between 1030' and 1040'.

R57W Twp 163N Sect. 29 $\frac{1}{4}$ SW 48° 55' " N. 98° 03' " W.

2. Site name. None

3. Previous designations. none

19. Owner(s)/tenant(s) past and present. Vernon Bennett

4. Type. Surface, very light scatter of lithic debris with skeletal material present.

5. Dimensions. 200 sq. meters.

6. Depth of deposit. unknown 1030'-1040'

7. Elevation.

8. Water. Pembina River

9. Vegetation on site. plowed field

10. Surrounding vegetation. Oak and brush some Birch stands

11. Fill of site. unknown, probably Walsh Formation clays

12. Subsoil and surrounding soil. probably Walsh formation clays

13. Burials. unknown

14. Habitations. unknown

15. Other features. unknown

16. Present condition. plowed

17. Possibility of future disturbance. will be under Pembina River Reservoir

18. Known finds and present location. materials left in situ

20. Attitude to excavation. probably good

21. Camping facilities. none

22. Historically territory of. Ojibwa and Sioux (Dakota) Indians.

23. Site was/was not occupied by Indians in historic times until. 17

24. Informants. none

25. Map. USGS Vang, 7.5 series #144A

26. Air photo.

27. Photographs. MSC. none

28. Published references.

29. Remarks and recommendations.

30. Reported by. Scott Anfinson

31. Observed by. Scott Anfinson

32. Recorded by. Scott Anfinson

33. Date. 6/1/75

(Continue or expand on back if necessary. Sketch map is desirable.)

US ARMY CORPS OF ENGINEERS
ST PAUL DISTRICT
SITE SURVEY FORM

State North Dakota

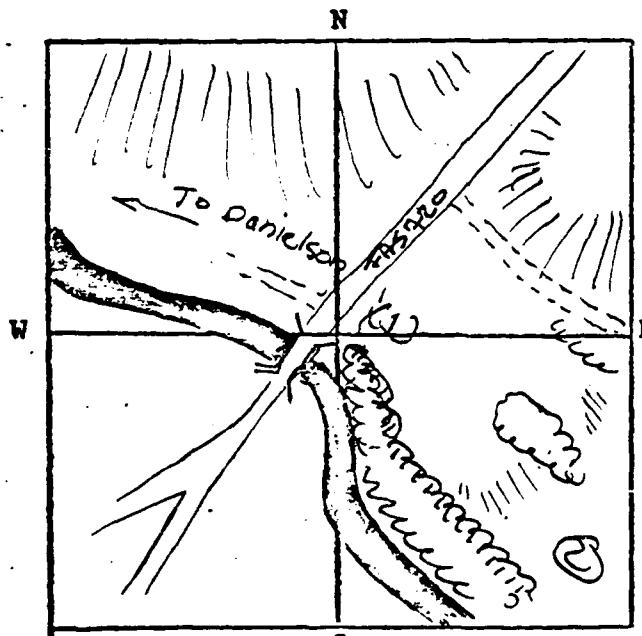
County Cavalier

CE Project Pembilier

Contract # DAW37-75-0-0169

Drainage Pembina

1. Type of site (prehistoric-mound, habitation; historic) Prehistoric
2. Map reference (CE, USGS) USGS Vang, 7.5 series, map 144 A
3. Location: Latitude _____ Longitude _____ $\frac{1}{2}$ Sec NW Section 20
Township 163 N Range 57W
4. Land owner and address Vernon Bennett, Walhalla, N.D.
5. Site description (vegetation, topo, area, etc) Site is on 1st terrace above the Pembina on the east bank where county road FAS 720 crosses the river. There are 2 localities. The first is immediately south of the road just before the bridge and contains lithic debris. The 2nd is 100 meters south and, containing bone.
6. Sketch map of site location (indicate chief topo features, houses, roads, section numbers, outline of site). Consider square as 1 section or $\frac{1}{2}$ sec. or 1/8 sec. INCLUDE A SCALE!



Legend and Comments:

- 1) locality 1 contains bifaces and flakes. from this locality the ground slopes south to the present flood plain
- 2) locality 2 is on the edge of the present flood plain where it meets the terrace. It holds Bovids, Canids and Odocoelius

The site is plowed and currently seeded.

7. Project Director K.M. Ames
8. Assistant
9. Form Recorder Ames
10. Field Director Scott Anfinson
11. Date 5/30/75

11. A detailed map of the site should be attached.

Unlisted Inc to Mr to Ames

MOORHEAD STATE COLLEGE ARCHAEOLOGICAL SITE SURVEY FORM

1. Location and access. The site is located on the south side of County Road FAS 720 on the east bank of the Pembina River, where the county road crosses the river. The site is next to the road.

R 57W Tshp 163N Sect. 29 1/4 NW

2. Site name None
3. Previous designations None

19. Owner(s) tenant(s) past and present
present owner is Vernon Bennett

4. Type surface site with lithic debris by the road and skeletal remains 100 m. south
5. Dimensions 200 sq. meters for both
6. Depth of deposit surface ?
7. Elevation 1040 ft.
8. Water next to Pembina River
9. Vegetation on site Barley
10. Surrounding vegetation Oak
11. Fill of site Walsh Formation, unit 1, with sand in locality 2 (bone area)
12. Subsoil and surrounding soil unknown
13. Burials none.
14. Habitations none observed
15. Other features 2nd locality contains Bovids on the surface
16. Present condition plowed and seeded
17. Possibility of future disturbance will be within Pembilier reservoir
18. Known finds and present location materials left in place

20. Attitude to excavation unknown
21. Camping facilities none

22. Historically territory of Chippewa and Sioux (Odzota) Indians.

23. Site was/was not occupied by Indians in historic times until ?

24. Informants Vernon Bennett

25. Map USGS Vang Quad, 144A, 7.5 series

26. Air photo
27. Photographs Moorhead State Col.
28. Published references none

29. Remarks and recommendations
One locality should be surface collected, though it may be a farmers' dump for dead animals.

30. Reported by Scott Anfinson
31. Observed by Scott Anfinson
32. Recorded by K.M. Ames
33. Date 5/30/75

(Continue or expand on back if necessary. Sketch map is desirable.)

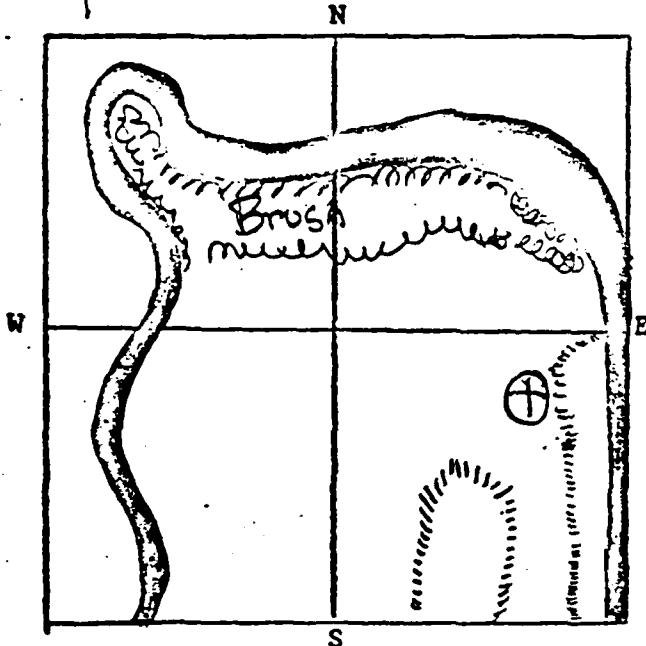
Site No.

US ARMY CORPS OF ENGINEERS
ST PAUL DISTRICT
SITE SURVEY FORM

32UV411
State North Dakota
County Cavalier
CE Project Pembilier
Contract # DACW27-75-C-0169
Drainage Pembina River

1. Type of site (prehistoric-mound, habitation; historic) prehistoric
2. Map reference (CE, USGS) USGS Vang N.D. Quad, 7.5 series, #1444
3. Location: Latitude 48 55' Longitude 98 03' 30" Sec SE Section 10
Township 163N Range 57W
4. Land owner and address: _____ unknown
5. Site description (vegetation, topo, area, etc) The site is in a plowed field on the south side of the Pembina River on the 1st terrace above the river on the east side of a large meander, but on the west bank.
6. Sketch map of site location (indicate chief topo features, houses, roads, section numbers, outline of site). Consider square as 1 section or $\frac{1}{4}$ sec. or 1/8 sec. INCLUDE A SCALE!

Fall Square = $\frac{1}{4}$ Section



Legend and Comments:

\oplus = lithic concentration

7. Project Director K.M. Ames
8. Ass't Field Scott Anfinson
9. Form Recorder Paul Sanders
10. Date 5/30/75
11. A detailed map of the site should be attached.

Unlisted Inc to Mr to Ames

MOORHEAD STATE COLLEGE ARCHAEOLOGICAL SITE SURVEY FORM

1. Location and access. Site is on the west bank of the Pembina where it

forms a large north-south meander, on the eastern side of the meander, on the 1st terrace or bar above the flood plain. Access to the site is from county road FAS720, going north on west bank of the river at the bridge.

R 57W Tshp 163N Sect. 19 1/4 SE 48° 55' 98° 03' 30" N. 98° 03' 30" W.

2. Site name none

19. Owner(s)/tenant(s) past and present

3. Previous designations none

Unknown (platt map illegible)

4. Type Surface site, with light scatter of lithic debris

5. Dimensions unknown

20. Attitude to excavation unknown

6. Depth of deposit unknown

21. Camping facilities none

7. Elevation 1010'

22. Historically territory of Ojibwa and

8. Water Pembina River

Dakota Indians.

9. Vegetation on site Site is clear for plowing

23. Site was/was not occupied by Indians in historic times until

10. Surrounding vegetation brush

24. Informants none

11. Fill of site unknown

25. Map USGS Vang N.D., 7.5 series 144A

12. Subsoil and surrounding soil unknown

26. Air photo

13. Burials none observed

27. Photographs MSC

14. Habitations none observed

28. Published references none

15. Other features none

29. Remarks and recommendations site

16. Present condition plowed

should be rechecked

17. Possibility of future disturbance will be under Pembilier reservoir

30. Reported by Paul Sanders

18. Known finds and present location

31. Observed by Paul Sanders

32. Recorded by Paul Sanders

33. Date 5/30/75

(Continue or expand on back if necessary. Sketch map is desirable.)

Site No.

US ARMY CORPS OF ENGINEERS
ST PAUL DISTRICT
SITE SURVEY FORM

320V212
State North Dakota
County Cavalier
CE Project Pembilier
Contract # DACW37-75-6-0169
Drainage Pembina

1. Type of site (prehistoric-mound, habitation; historic) prehistoric

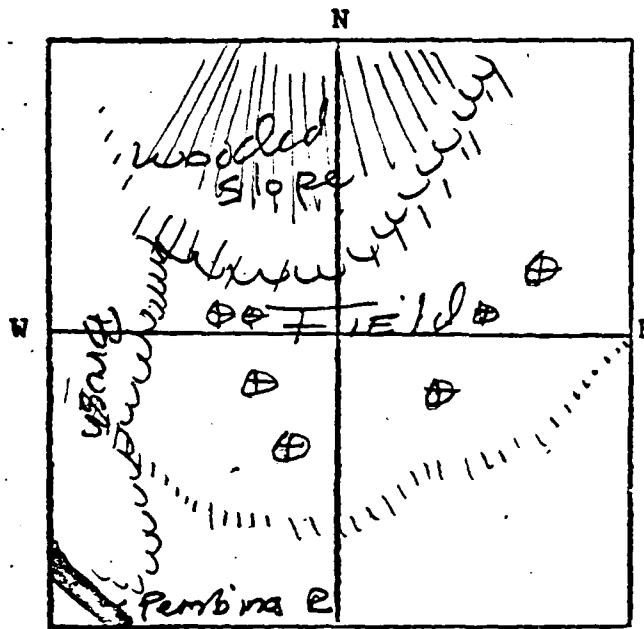
2. Map reference (CE, USGS) USGS Vang Quad, series 7.5, #144A

3. Location: Latitude 48 55' Longitude 98 04' $\frac{1}{2}$ Sec SW Section 19
Township 163N Range 57W

4. Land owner and address Lloyd Danielson, Rr, Walhalla, N.D.

5. Site description (vegetation, topo, area, etc) The site is located on north bank of the Pembina, about an 1/8 of mile north of the river on a terrace backed by brush, in a wheat field, site fills a large portion of the field.

6. Sketch map of site location (indicate chief topo features, houses, roads, section numbers, outline of site). Consider square as 1 section or $\frac{1}{2}$ sec. or 1/8 sec. INCLUDE A SCALE!



Legend and Comments:

\oplus = lithic debris

Site appears to be concentrated along the 1050' line, on the 1st terrace above the flood plain. Material in the site is primarily lithic debris of quartzites and chert.

7. Project Director K.M. Ames 9. Form Recorder Scott Anfinson
Ass't

8. Field Director Scott Anfinson 10. Date 5/31/75

11. A detailed map of the site should be attached.

Unlisted Zncl to Hr to Ames

MOORHEAD STATE COLLEGE ARCHAEOLOGICAL SITE SURVEY FORM

1. Location and access. The site is located on the 1st terrace above the flood plain about 1/8 mile north of the north bank of the Pembina. The locality is a wheat field, backed by a brushy slope. Access is from the east along the Danielson farm road, which links to FAS720 just east of the Pembina river bridge, on the north side of the county road.

R 57W Twp 16N Sect. 19 1/4 SW 48° 55' " N. 98° 04' " W.

2. Site name. none

19. Owner(s)/tenant(s) past and present

Lloyd Danielson

3. Previous designations none

4. Type prehistoric surface site, scatter of quartzite and chert lithic debris

5. Dimensions 200mx200m

20. Attitude to excavation probably good

6. Depth of deposit unknown

21. Camping facilities none observed

7. Elevation 1050'

8. Water Pembina River

9. Vegetation on site wheat

10. Surrounding vegetation Oak, grasses, low brush

22. Historically territory of Ojibwa and

Dakota

Indians.

11. Fill of site Walsh Formation unit 1 clays

23. Site was/was not occupied by Indians in historic

times until ?

12. Subsoil and surrounding soil unknown

24. Informants none

13. Burials none observed

25. Map USGS Vang Quad, series 7.5 #144A

14. Habitations none observed

26. Air photo

15. Other features none observed

27. Photographs MSC

16. Present condition in wheat

28. Published references none

17. Possibility of future disturbance would be beneath Pembilier Reservoir

29. Remarks and recommendations Site should

be intensivley collected and tested.

18. Known finds and present location all material left in place

30. Reported by

31. Observed by Scott Anfinson

32. Recorded by Scott Anfinson/K.M. Ames

33. Date 5/31/75

(Continue or expand on back if necessary. Sketch map is desirable.)

Site No.

US ARMY CORPS OF ENGINEERS
ST PAUL DISTRICT
SITE SURVEY FORM

State North Dakota

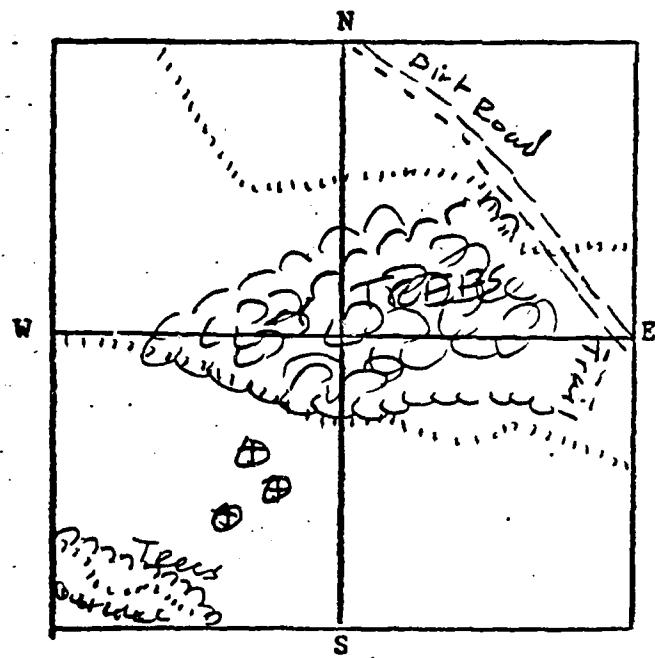
County Cavalier

CE Project Perthilier

Contract # DACW37-75-C-0169

Drainage Perthilier

1. Type of site (prehistoric-mound, habitation; historic) Prehistoric
2. Map reference (CE, USGS) USGS Vang Quad, 7.5 series #144A
3. Location: Latitude 48 56' Longitude 98 05' $\frac{1}{4}$ Sec SW Section 19
Township 163N Range 57W
4. Land owner and address Lloyd Danielson, RR, Walhalla, N.D.
5. Site description (vegetation, topo, area, etc). The site is located immediately behind the leading edge (Southwest edge) of the second terrace above the river in a plowed field (1st terrace above the modern flood plain) on a peninsula of open field between lines of trees and brush with a steeper slope behind.
6. Sketch map of site location (indicate chief topo features, houses, roads, section numbers, outline of site). Consider square as 1 section or $\frac{1}{4}$ sec. or $1/8$ sec. INCLUDE A SCALE!
 $\frac{1}{4}$ ~~section~~ = $\frac{1}{16}$ section



Legend and Comments:

\oplus = lithic debris

Materials appear to be concentrated just behind edge of terrace. Lithic débris are abundant, with quartz and chert dominant raw material.

7. Project Director K.M. Ames
8. Field Director Scott Anfinson
9. Form Recorder Scott Anfinson
10. Date 5/31/75
11. A detailed map of the site should be attached.

Unlisted Incl to Itr to Ames

MOORHEAD STATE COLLEGE ARCHAEOLOGICAL SITE SURVEY FORM

1. Location and access. Site is located above the north bank of the Pembina river on the 1st terrace above the flood plain in an open field between two lines of trees. The field is approached by turning off county road FAS720 at the Danielson Farm on the west bank before the Pembina bridge and following the farm road.

R57W Twp 163N Sect. 19 $\frac{1}{4}$ SW 48° 56' " N. 98° 05' " W.
none

2. Site name _____ 19. Owner(s)/tenant(s) past and present _____
none Lloyd Danielson

4. Type Surface site with concentration of lithic debris in the field

5. Dimensions unknown 20. Attitude to excavation probably good

6. Depth of deposit unknown 21. Camping facilities none noticed

7. Elevation 1020'-1050' 22. Historically territory of Ojibwa and

8. Water Pembina River Dakota Indians.

9. Vegetation on site site is plowed 23. Site was/was not occupied by Indians in historic

10. Surrounding vegetation Oak, Brush times until ?

11. Fill of site unknown, probably Walsh 24. Informants none

12. Subsoil and surrounding soil unknown 25. Map USGS Vang Quad, 7.5 series #144A

13. Burials none observed 26. Air photo

14. Habitations none observed 27. Photographs MSC

15. Other features none 28. Published references none

16. Present condition plowed 29. Remarks and recommendations site should

17. Possibility of future disturbance will be under be intensively surface collected

Pembilier Reservoir and perhaps tested if the surface

collection warrents.

18. Known finds and present location all material 30. Reported by

left in situ

31. Observed by Scott Anfinson

32. Recorded by Scott Anfinson

33. Date 5/31/75

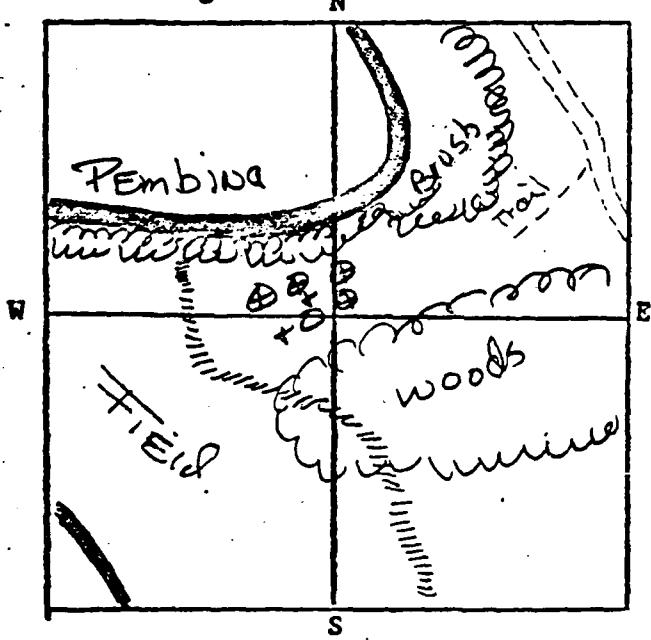
(Continue or expand on back if necessary. Sketch map is desirable.)

US ARMY CORPS OF ENGINEERS
ST PAUL DISTRICT
SITE SURVEY FORM

32CV214
State North Dakota
County Cavalier
CE Project Pembina
Contract # DACW37 75 C 0169
Drainage Pembina

1. Type of site (prehistoric-mound, habitation; historic) prehistoric hab.
2. Map reference (CE, USGS) USGS Vang Quad 7.5 series, #144A
3. Location: Latitude 48 55' Longitude 08 4' 1/Sec NE Section 21
Township 163N Range 58W
4. Land owner and address Lloyd Danielson, Rr. Walhalla N.D.
5. Site description (vegetation, topo, area, etc) The site is located on the SE bank of the Pembina where it cuts a sharp eastward meander on the 1st terrace above the flood plain in the middle of the terrace and towards the front in a wheat field backed to the south by a line of trees. To the front (north) is the riparian brush and trees along the river. The site lies in the corridor between
6. Sketch map of site location (indicate chief topo features, houses, roads, section numbers, outline of site). Consider square as 1 section or 1/4 sec. INCLUDE A SCALE!

Full square = 1/4 Section



Legend and Comments:

- = lithic debris
- = bone debris
- + = shell (mussels)

The main part of the site appears to be just east of the front of the terrace. The main concentration includes lithic debris of cherts and quartzite, and faunal remains including Bovids, Odoceolius and fresh water mussel shells.

7. Project Director K.M. Ames
8. Ass't
9. Form Recorder Anfinson
10. Field Director Scott Anfinson
11. Date 5/31/75

11. A detailed map of the site should be attached.

Unlisted Zncl to Hr to Ames

MOORHEAD STATE COLLEGE ARCHAEOLOGICAL SITE SURVEY FORM

1. Location and access. The site is located on the 1st terrace above the Pembina flood plain on the SE bank of a sharp eastward meander of the river. The site is in a wheat field located between the woods on the slope to the east and the riparian brush along the river. The major concentration of material is along the edge of the terrace.	
R58W Tshp ¹⁶ 3N Sect. ²⁴ $\frac{1}{4}$ NE 48° 55' "N. 98° 4' "W. see comments	
2. Site name none	
3. Previous designations none	
4. Type Prehistoric surface site, with lithic debris associated with bovids and mussels	
5. Dimensions unknown	
6. Depth of deposit unknown	
7. Elevation 1030'	
8. Water Pembina River	
9. Vegetation on site wheat	
10. Surrounding vegetation Oak, and Riparian vegetation	
11. Fill of site unknown	
12. Subsoil and surrounding soil unknown	
13. Burials none observed	
14. Habitations none observed	
15. Other features none observed	
16. Present condition plowed and planted	
17. Possibility of future disturbance will be under Pembilier reservoir	
18. Known finds and present location all materials left in situ	
19. Owner(s)/tenant(s) past and present Lloyd Danielson	
20. Attitude to excavation probably good	
21. Camping facilities none noticed	
22. Historically territory of Ojibwa and Dakota Indians.	
23. Site was/was not occupied by Indians in historic times until ?	
24. Informants none	
25. Map USGS Vang Quad, 7.5 series #144A	
26. Air photo	
27. Photographs MSC	
28. Published references none	
29. Remarks and recommendations Site should be intensively collected and tested. Access is on the Danielson farm road along north bank of Pembina from county road FAS#20	
30. Reported by	
31. Observed by Scott Anfinson	
32. Recorded by Anfinson/K.M. Ames	
33. Date 5/31/75	

(Continue or expand on back if necessary. Sketch map is desirable.)

Site No.

US ARMY CORPS OF ENGINEERS
ST PAUL DISTRICT
SITE SURVEY FORM

3204210
State North Dakota

County Cavalier

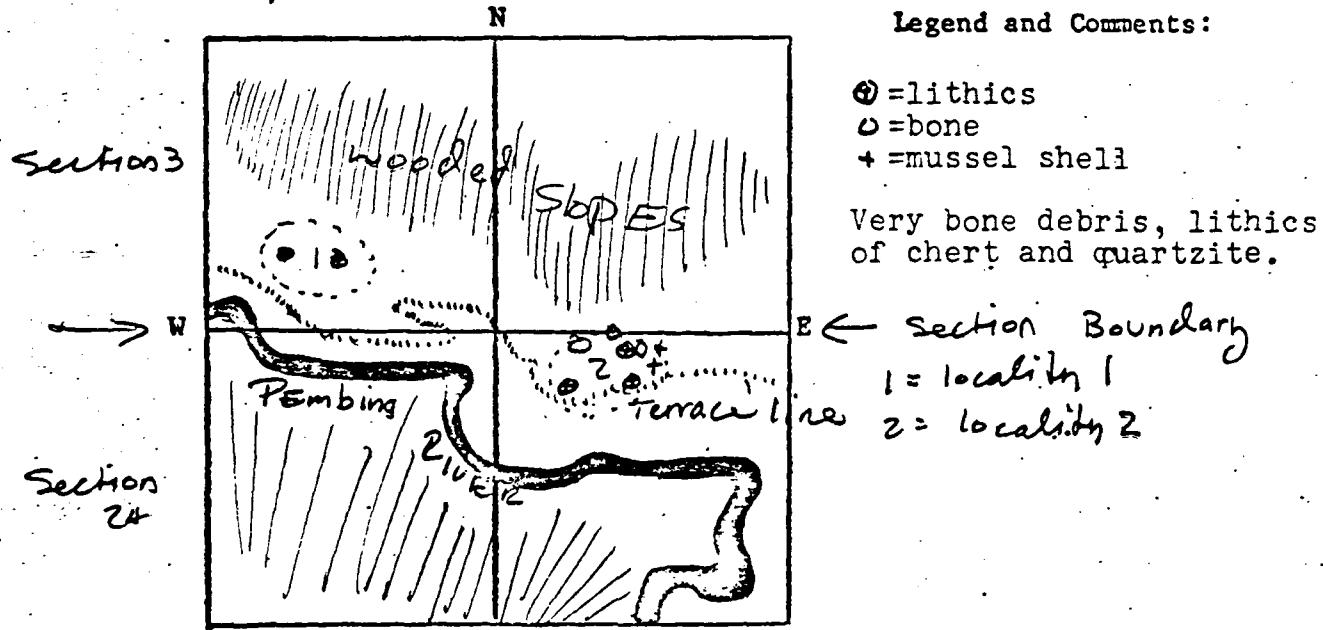
CE Project Pembilier

Contract # DACW37-75-C-0160

Drainage Pembina

1. Type of site (prehistoric-mound, habitation; historic) prehistoric hab.
2. Map reference (CE, USGS) USGS Vang N.D. 7.5 series, 144A
3. Location: Latitude 48° 52' N Longitude 98° 51' W ~~Sec NW~~ ^{NE SW} Section 24
Township 163N Range 58W
4. Land owner and address Lloyd Danielson, Rr/ Walhalla N.D.
5. Site description (vegetation, topo, area, etc) The site is a scatter of lithic debris along the southern edge of the 1st terrace on the north bank of the Pembina in a long open field north of the confluence with the North Fork of the Pembina. Some material are also found on the slope from the terrace to the flood plain.
6. Sketch map of site location (indicate chief topo features, houses, roads, section numbers, outline of site). Consider square as 1 section or $\frac{1}{4}$ sec. or $\frac{1}{8}$ sec. INCLUDE A SCALE!

Full Square = 1 section



7. Project Director K.M. Ames
Ass't

9. Form Recorder Scott Anfinson

8. Field Director Field Scott Anfins Date 5/31/75

11. A detailed map of the site should be attached.

Unlisted Inc to Mr to Ames

MOORHEAD STATE COLLEGE ARCHAEOLOGICAL SITE SURVEY FORM

1. Location and access. The site is in a long field on the north bank of the Pembina just north of the confluence with the Pembina's north Fork. The material, primarily lithics is scattered along the 1st Terrace above the river. Access is along the Danielson farm road from county road FAS720.

R 58W Tshp 162N Sect. 13 1/4 SW 48° 56' " N. 98° 5' " W.

2. Site name none 19. Owner(s)/tenant(s) past and present

3. Previous designations none Lloyd Danielson

4. Type surface site, with lithic and bone scatter.

5. Dimensions unknown 20. Attitude to excavation unknown

6. Depth of deposit unknown 21. Camping facilities none

7. Elevation 1050' 22. Historically territory of Ojibwa and

Pembina River Dakota Indians.

8. Water open field 23. Site was/was not occupied by Indians in historic

9. Vegetation on site 24. Informants

10. Surrounding vegetation Oak woodland, riparian vegetation 25. Map USGS Vang Quad. 7.5 series 144A

11. Fill of site unknown 26. Air photo MSC

12. Subsoil and surrounding soil unknown 27. Photographs

13. Burials none observed 28. Published references none

14. Habitations none observed 29. Remarks and recommendations should be collected and mapped

15. Other features none

16. Present condition plowed

17. Possibility of future disturbance will be under max. levels of Pembilier Reservoir

18. Known finds and present location all materials reported by

left in place Scott Anfinson

31. Observed by

32. Recorded by Scott Anfinson

33. Date 5/31/75

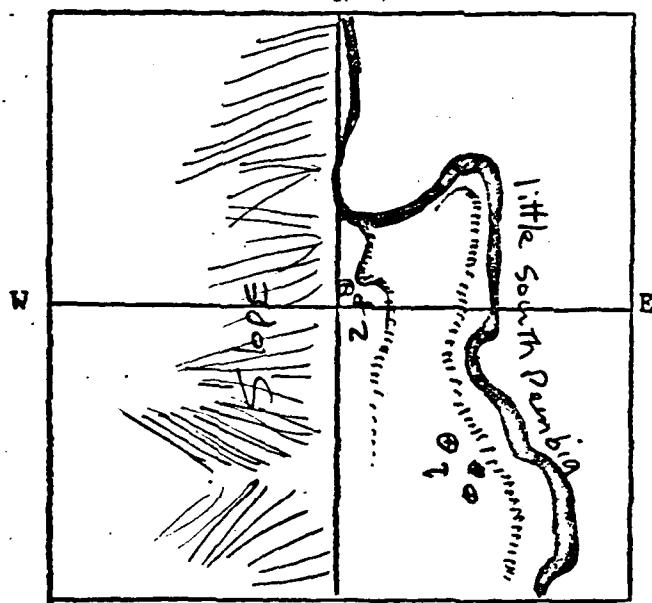
(Continue or expand on back if necessary. Sketch map is desirable.)

US ARMY CORPS OF ENGINEERS
ST PAUL DISTRICT
SITE SURVEY FORM

State North Dakota
County Cavalier
CE Project Pembilier
Contract # DACW37-75-C-0159
Drainage Pembina

1. Type of site (prehistoric-mound, habitation; historic) Prehistoric hab.
2. Map reference (CE, USGS) USGS Vang N.D. 7.5 series #144A
3. Location: Latitude 48 52' Longitude 98 01' $\frac{1}{2}$ Sec NE Section 4
Township 162N Range 57W
4. Land owner and address Peter Koropatnicki, Rr Walhalla, N.D.
5. Site description (vegetation, topo, area, etc) There are two localities
one located on the 1st terrace, and second on a higher terrace
~~about 200m north and west. Both are on the western side of the~~
Little South Pembina in wheat fields. The flood plain
~~here is relatively broad and flat and farmed in its entirety~~
6. Sketch map of site location (indicate chief topo features, houses, roads, section numbers, outline of site). Consider square as 1 section or $\frac{1}{2}$ sec. or 1/8 sec. INCLUDE A SCALE!

Full square. = $\frac{1}{N}$ Section



Legend and Comments:

⊕ = lithic debris
? = rim sherd

The materials are concentrated along the edges of the terraces and the slopes below. 1 is first locality, 2 is second.

7. Project Director K.M. Ames
ASS'T

9. Form Recorder Anfinson

8. Field Director Scott Anfinson

10. Date 6/3/75

11. A detailed map of the site should be attached.

Unlisted Incl to Htr to Ames

MOORHEAD STATE COLLEGE ARCHAEOLOGICAL SITE SURVEY FORM

DESCRIPTION	1. Location and access	Site has 2 localities on the western side of the Little Pembina River flood plain. Access is through fields to the north. The sites are located on the 1st and higher terraces above the flood plain. Locality 1 is close to the stream, locality 2 is on the higher terrace abutting the wooded slope 200m to the north, through the fields.		
	R 57W Tshp ^{162N} Sect. ⁴ ^{1/4 NE} ° ' " N. ° ' " W.			
	2. Site name	none		
	3. Previous designations	none		
	4. Type	Surface site with scatter of quartzite and chert lithic debris		
	5. Dimensions	unknown		
	6. Depth of deposit	unknown 1030' to 1060'		
	7. Elevation			
	8. Water	Little Pembina River		
	9. Vegetation on site	Open field		
	10. Surrounding vegetation	Oak woodland, riparian vegetation		
	11. Fill of site	unknown		
	12. Subsoil and surrounding soil	unknown		
	13. Burials	none observed		
	14. Habitations	none observed		
	15. Other features	none		
	16. Present condition	plowed		
	17. Possibility of future disturbance	will be under maximum levels of Pembilier reservoir.		
18. Known finds and present location	All materials left in situ			
19. Owner(s)/tenant(s) past and present	Peter Kropatnicki			
20. Attitude to excavation	unknown			
21. Camping facilities	none			
22. Historically territory of	Ojibwa and Dakota Indians.			
23. Site was/was not occupied by Indians in historic times until				
24. Informants	none			
25. Map	USGS Vang, ND. 7.5 series #144A			
26. Air photo				
27. Photographs	MSC			
28. Published references	none			
29. Remarks and recommendations	site should surface collected			
30. Reported by	Scott Ahfinson			
31. Observed by				
32. Recorded by	Anfinson			
33. Date	6/3/75			

Site No.

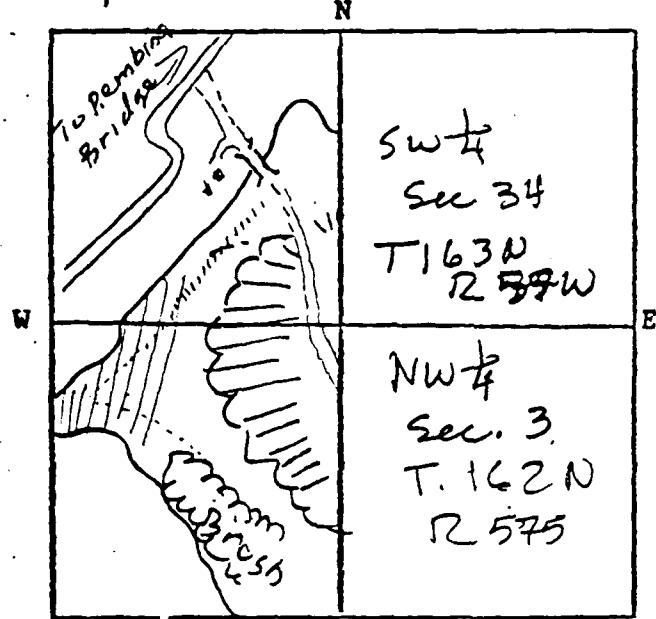
(Continue or expand on back if necessary. Sketch map is desirable.)

US ARMY CORPS OF ENGINEERS
ST PAUL DISTRICT
SITE SURVEY FORM

State North Dakota
County Cavalier
CE Project Rembina
Contract # DAEW37-75-C-0169
Drainage Rembina

1. Type of site (prehistoric-mound, habitation; historic) prehistoric
2. Map reference (CE, USGS) USGS Vang Quad, 7.5 series, #144A
3. Location: Latitude 48 53 Longitude 98 01 $\frac{1}{4}$ Sec SE Section 33
Township T 163 N Range R 57 W
4. Land owner and address Peter Kropatki, RR Walhalla, N.D.
5. Site description (vegetation, topo, area, etc) Plowed field in wheat, with wooded slopes behind (east)
6. Sketch map of site location (indicate chief topo features, houses, roads, section numbers, outline of site). Consider square as 1 section or $\frac{1}{4}$ sec. or 1/8 sec. INCLUDE A SCALE!

Full Square = Section



Legend and Comments:

The site is on the 2nd terrace above the stream (1st above flood plain) and undulates forming a series of small terraces from bar formation. All these contain lithic debris, a bit of bovid skeletal material. The flood plain is sterile.

/// = major concentration

7. Project Director K.M. Ames 9. Form Recorder Scott Anfinson
Ass't 10. Date June 2, 1975

8. Field Director Scott Anfinson

11. A detailed map of the site should be attached.

Unlisted Inc to Mr to Ames

MOORHEAD STATE COLLEGE ARCHAEOLOGICAL SITE SURVEY FORM

1. Location and access.	Site is on the east bank of the Little South Pembina in a wheat field. Take east fork of road at Carpenter's farmstead and cross Little Pembina, then follow trail to west down into flood plain.		
R 57W Tshp 163N Sect. 33 1/4 SE 162N NE		48 . 53 , "N. 98 . 01 , "W.	
2. Site name	none		
3. Previous designations	none		
4. Type	surface site with lithic scatter		
5. Dimensions	200mx200m		
6. Depth of deposit	unknown		
7. Elevation	1020' : 1040'		
8. Water	Little South Pembina		
9. Vegetation on site	wheat		
10. Surrounding vegetation	Brush, Oaks		
11. Fill of site	unknown		
12. Subsoil and surrounding soil	unknown, probably Walsh Formation Clays, and Pierre Formation Marls		
13. Burials	none		
14. Habitations	none		
15. Other features	none		
16. Present condition	glowed		
17. Possibility of future disturbance	Would be under Pembilier Reservoir		
18. Known finds and present location	all materials left in situ		
19. Owner(s)	tenant(s) past and present Peter Koropatki		
20. Attitude to excavation	unknown		
21. Camping facilities	none		
22. Historically territory of	Ojibwa and Dakota Indians.		
23. Site was/was not occupied by Indians in historic times until	? -		
24. Informants	none		
25. Map	USGS Vang 7.5 series #144A		
26. Air photo			
27. Photographs	MSC		
28. Published references	none		
29. Remarks and recommendations	intensive survey and collection needed, perhaps testing		
30. Reported by	Scott Anfinson		
31. Observed by			
32. Recorded by	Scott Anfinson		
33. Date	6/22/75		

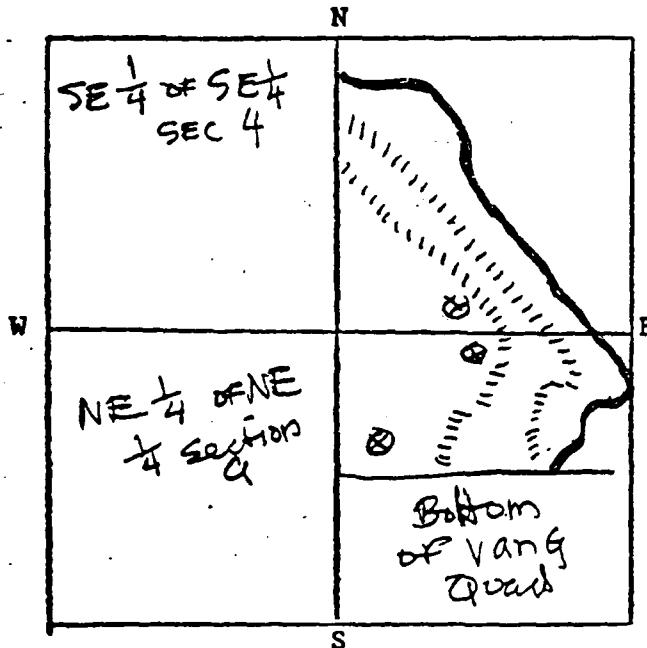
(Continue or expand on back if necessary. Sketch map is desirable.)

US ARMY CORPS OF ENGINEERS
ST PAUL DISTRICT
SITE SURVEY FORM

320VC1C
State North Dakota
County Cavalier
CE Project Pembina
Contract # DACW37-75-C-0160
Drainage Pembina River

1. Type of site (prehistoric-mound, habitation; historic) prehistoric Hab.
2. Map reference (CE, USGS) USGS Vang Quad, 7.5 series #144A
3. Location: Latitude 48 52' Longitude 98 01' $\frac{1}{2}$ Sec NW Section 1C
Township 162N Range 57W
4. Land owner and address Peter Koropatnicki, Rr Walhalla N.D.
5. Site description (vegetation, topo, area, etc) The site is in a plowed field on the second terrace above the Little South Pembina on the west bank. The field has brush on the stream side and oak woodlands on the slopes to the west. Almost the entire flood plain in this area is plowed. The river makes a sharp meander to the east just south of the site.
6. Sketch map of site location (indicate chief topo features, houses, roads, section numbers, outline of site). Consider square as 1 section or $\frac{1}{4}$ sec. or 1/8 sec. INCLUDE A SCALE!

~~Full~~ ^{Square} = $\frac{1}{4}$ Section



Legend and Comments:

\oplus = lithic debris
lithic debris are scattered with glacial cobbles on the second terrace. A few Bovid bones are also present

7. Project Director K.M. Ames 9. Form Recorder Scott Anfinson
Ass't

8. Field Director Scott Anfinson 10. Date 6/3/75

11. A detailed map of the site should be attached.

Unlisted Encl to Mr Ames

MOORHEAD STATE COLLEGE ARCHAEOLOGICAL SITE SURVEY FORM

1. Location and access. The site is on the west bank of the Little South Pembina on the second terrace in an open field immediately north of a sharp eastward meander by the stream. The site along the edge of the terrace. Access is through the field to the north.

3 SW
R57W Tshp 162N Sect. 10 1/4 NW 48° 52' "N. 98° 01' "W.

2. Site name none 19. Owner(s) ~~tenant(s)~~ past and present Peter Koropatnicki

3. Previous designations none

4. Type lithic surface scatter with some bovid in area

5. Dimensions unknown 20. Attitude to excavation unknown

6. Depth of deposit unknown 21. Camping facilities none

7. Elevation 1050'

8. Water Little South Pembina 22. Historically territory of Ojibwa and

9. Vegetation on site open field Dakota Indians.

10. Surrounding vegetation riparian brush to east, oak woodland to west. 23. Site was/was not occupied by Indians in historic times until ?

11. Fill of site unknown 24. Informants none

12. Subsoil and surrounding soil unknown 25. Map USGS Vang, 7.5 series #144A

13. Burials none observed 26. Air photo

14. Habitations none observed 27. Photographs MSC

15. Other features none 28. Published references none

16. Present condition in plowed field 29. Remarks and recommendations surface collections should be made

17. Possibility of future disturbance will be under Pembilier reservoir at moderate water levels.

18. Known finds and present location all materials left in place 30. Reported by

31. Observed by Scott Anfinson

32. Recorded by Scott Anfinson

33. Date 6/3/75

(Continue or expand on back if necessary. Sketch map is desirable.)

US ARMY CORPS OF ENGINEERS
ST PAUL DISTRICT
SITE SURVEY FORM

State North Dakota

County Cavalier

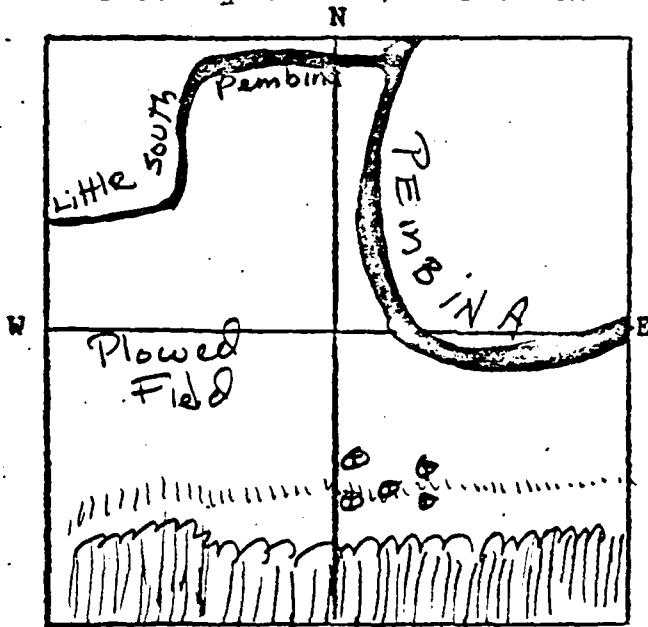
CE Project Pembilier

Contract # DACW37-75-C-0169

Drainage Femolina

1. Type of site (prehistoric-mound, habitation; historic) prehistoric
2. Map reference (CE, USGS) USGS Vang Quad, 7.5 series #144A
3. Location: Latitude 48 54' Longitude 98 01' $\frac{1}{4}$ Sec SW Section 3
Township 163N Range 57W
4. Land owner and address Allen Thompson, RR Walhalla, N.D.
5. Site description (vegetation, topo, area, etc) Site is on the second terrace on south bank of river, south of confluence of Little Pembina with the Pembina. The site is plowed.
6. Sketch map of site location (indicate chief topo features, houses, roads, section numbers, outline of site). Consider square as 1 section or $\frac{1}{4}$ sec. or 1/8 sec. INCLUDE A SCALE!

full square = 1/16 section



Legend and Comments:

⊕ = lithic debris
Site is just to the east of a bulldozer cut into the slope on the 2nd terrace. The lithic material is primarily quartzite flakes and cores in a light scatter.

7. Project Director R.M. Ames
8. ASS Scott Anfinson
9. Form Recorder Scott Anfinson
10. Field Director Scott Anfinson
11. Date 6/2/75

11. A detailed map of the site should be attached.

Unlisted Inc to Mr Ames

MOORHEAD STATE COLLEGE ARCHAEOLOGICAL SITE SURVEY FORM

1. Location and access. Site is located south of the Pembina's confluence with the Little South Pembina. Take south fork of road at Carpenter's farmstead and cross Little South Pembina, then follow south edge of field to where slopes turn to the southeast.

R57W Tshp 163N Sect. 34 1/4 SW 48° 54' "N. 98° 01' "W.

2. Site name none 19. Owner(s) /tenant(s) past and present Allen Thompson

3. Previous designations none

4. Type prehistoric lithic scatter, surface.

5. Dimensions 10mx10cm 20. Attitude to excavation unknown

6. Depth of deposit unknown 21. Camping facilities none

7. Elevation 1000' 22. Historically territory of Ojibwa and Sioux (Dakota) Indians.

8. Water Pembina River 23. Site was/was not occupied by Indians in historic times until ?

9. Vegetation on site field is plowed 24. Informants none

10. Surrounding vegetation Brush, Oaks, Birch, poison ivy

11. Fill of site Unknown, probably Walsh Formation clays, 25. Map USGS Vang, 7.5 series #144A

12. Subsoil and surrounding soil Unknown 26. Air photo

13. Burials none observed 27. Photographs MSC

14. Habitations none 28. Published references none

15. Other features none 29. Remarks and recommendations

16. Present condition plowed

17. Possibility of future disturbance Would be flooded by Pembilier Reservoir

18. Known finds and present location material \$0. Reported by

left in situ

31. Observed by Scott Anfinsen

32. Recorded by Scott Anfinsen

33. Date 6/2/75

(Continue or expand on back if necessary. Sketch map is desirable.)

APPENDIX B

ARTIFACT CATALOGUE

Artifact Catalogue

	Description	Provenience	Date
1	Core Fragment	Test Pit 2, NE Quadrant Plow Zone	5/31/75
2	Core	Test Pit 1, NE Quadrant Plow Zone	5/31/75
3	Core	Test Pit 2, SE Quadrant Plow Zone	5/31/75
4	Basal End, Side Notched Projectile Point	Test Pit 1, SW Quadrant Plow Zone	5/31/75
5	Core Fragment	Test Pit 2, NW Quadrant Plow Zone	5/31/75
6	Biface	Test Pit 1, NE Quadrant Plow Zone	6/1/75
7	Core Fragment	Test Pit 1, NE Quadrant Plow Zone	6/1/75
8	Core Fragment	Test Pit 1, NE Quadrant Plow Zone	6/1/75
9	Biface	Test Pit 2, NE Quadrant Plow Zone	6/1/75
10	Core Fragment	Test Pit 2, SE Quadrant Plow Zone	6/1/75

32CV201

Artifact Catalogue

	Description	Provenience	Date
1	Plow blade fragment	Test Pit 1, South half Humus layer, 5-6cm DBD	6/3/75
2	Crockery fragment	Test Pit 1, South half Sod or humus layer, 5-6cm. DBD	6/3/75
3	Metal punch	Test Pit 1, South half Humus layer, (sod)	6/3/75
4	Beaked End Scrapper	Test Pit 2, North half Level 1	6/3/75
5	Grooved Stone	Test Pit 1, North half 20cm DBD at boundary between sod and Walsh Formation clays	6/3/75
6	Indented basal projectile point fragment	Test pit 1, South half found in screen	6/4/75
7	Core Fragment	Test Pit 3, North half found in screen, humus zone	6/6/75

APPENDIX C

(1) PROJECT DIRECTOR AND FIELD DIRECTOR
KENNETH M. AMES
SEE ATTACHED VITA

(2) ASSISTANT FIELD DIRECTOR
SCOTT ANFINSON
M.A. STUDENT IN ARCHAEOLOGY
UNIVERSITY OF NEBRASKA
LINCOLN, NEBRASKA

(3) CREW MEMBERS
THOMAS FRICKE
CHARLES T. HOPKINS
FREDERICK MCCALLUS
PAUL S. SANDERS

Anthropology majors in Anthropology Program

MOORHEAD STATE COLLEGE
Moorhead, Minnesota

Kenneth M. Ames

General Information

Occupation: Archaeologist

PII Redacted



Present Position

Instructor, Department of Sociology and Anthropology,
Moorhead State College, since September 1973

Education

1959-1961 Seoul American High School, Seoul, Korea
1961-1963 Fort Hamilton High School, Fort Hamilton, N.Y.

Undergraduate Study:

1963-1967 George Washington University; B.A. in Anthropology
(1967)

Graduate study:

1967-1969 University of New Mexico; M.A. in Anthropology (1969)
1970-present Washington State University (Ph.D. anticipated
August, 1975)

Professional Experience

1967: Research Assistant, Doris Duke Foundation Ethnohistory Project, University of New Mexico
1968: Graduate Assistant, Department of Anthropology, University of New Mexico
1969: Field supervisor, National Museum of Canada Field Party
1970-73: Teaching Assistant, Department of Anthropology, Washington State University
1970: Director, excavations at GhSv:2, British Columbia
1971: Director, Archaeological Site Survey, Central Skeena River Valley, British Columbia
1972: Assistant Director, Washington State University Archaeological Field School
1972: Instructor of Introductory Anthropology, Washington State University
1973: Instructor, Department of Sociology and Anthropology, University of Idaho
1973-present Instructor, Moorhead State College, Department of Sociology and Anthropology

Grants, Fellowships and Research Contracts

1968: Research Contract, National Museum of Canada
 1969: Research Contract, National Museum of Canada
 1970: Research Contract, National Museum of Canada
 1970: NSF Summer Traineeship
 1970: NDEA Summer Research Allotment
 1971: NDEA Title IV Fellowship
 1971: Research Contract, Archaeological Survey of Canada
 1971: NDEA Summer Research Allotment
 1972: NDEA Summer Research Allotment

Research and Field Experience

1967: Took part in excavations of Paleo-Indian sites, Central Valley of New Mexico
 1968: Spent summer working on two sites, GbTn:1, in Fern Passage, British Columbia, and GdTc:2, in the Kitselas Canyon, British Columbia
 1969: Spent summer excavating house terraces at GbTo:31, Digby Island, British Columbia
 1970: Directed excavations at GhSv:2, Hagwilget Canyon, British Columbia
 1970: Conducted analysis of material from GhSv:2
 1971: Surveyed the Central Skeena River Valley for the Archaeological Survey of Canada
 1972: Directed excavations of 45AS78 in the Snake River Canyon, Washington
 1973: Conducted analysis of material from GbTo:23, Garden Island, British Columbia, as part of Ph.D. thesis
 1974: Continuing analysis of material from GbTo:23 and writing Ph.D. thesis

Topical Specialties

- Archaeological Method and Theory
- Environment and Culture, with emphasis upon reconstruction of Quaternary environments and development of cultural ecological models
- The Archaeology of North America, with special emphasis upon the Northwest Coast, Plateau, Subarctic and Arctic
- Archaeology and Ethnology of the North Pacific Rim, and Circum-Polar Regions
- Hominid Evolution; Primate Behavior

Professional Papers

1971a: Preliminary Report of Excavations at GhSv:2, Hagwilget Canyon, British Columbia, Report deposited at the National Museum of Canada, Archaeological Sites Review Board, British Columbia, and Washington State University

1971b: Excavations at BhSv:2, Hagwilget Canyon, British Columbia, Paper delivered to Northwest Archaeological Association Meeting, Moscow, Idaho

1972a: Archaeological Survey of the Middle Skeena Valley, Contract Report submitted to Archaeological Survey of Canada, deposited with Archaeological Sites Review Board, British Columbia, and Washington State University

1972b: Recent Archaeological Research Conducted in the Central Skeena River Valley of British Columbia, in Midden publication, Archaeological Society of British Columbia

1973a: Analysis of Two Glacial Tills Near Crown Point Lookout, Grand Coulee Washington, Paper read at the Northwest Science Association Meetings, Walla Walla, Washington with Roald Fryxell and M. Fosberg.

1973b: Steady State Maintenance on the Northwest Coast. Paper read at Society for American Archaeology Meetings, San Francisco, California.

n.d. Report of Excavations at GhSv:2, Hagwilget Canyon, British Columbia, to be published in Mercury, National Museums of Canada publication.

n.d. The Bone Tool Assemblage of the Garden Island Site, British Columbia. An Analysis of Variability Through Time. Ph.D. thesis in progress.

1974: The Demography of Technology. Proceedings, Second Annual Tri-College Anthropology-Sociology Convention

Committees

Moorhead State College Human Relations Committee
Tri-College Council for Environmental Science

Professional Organizations

American Anthropological Association
Society for American Archaeology